ARCHITECTURAL RECORD



JANUARY 1956

BUILDING TYPES STUDY

LODGINGS FOR TRAVELERS

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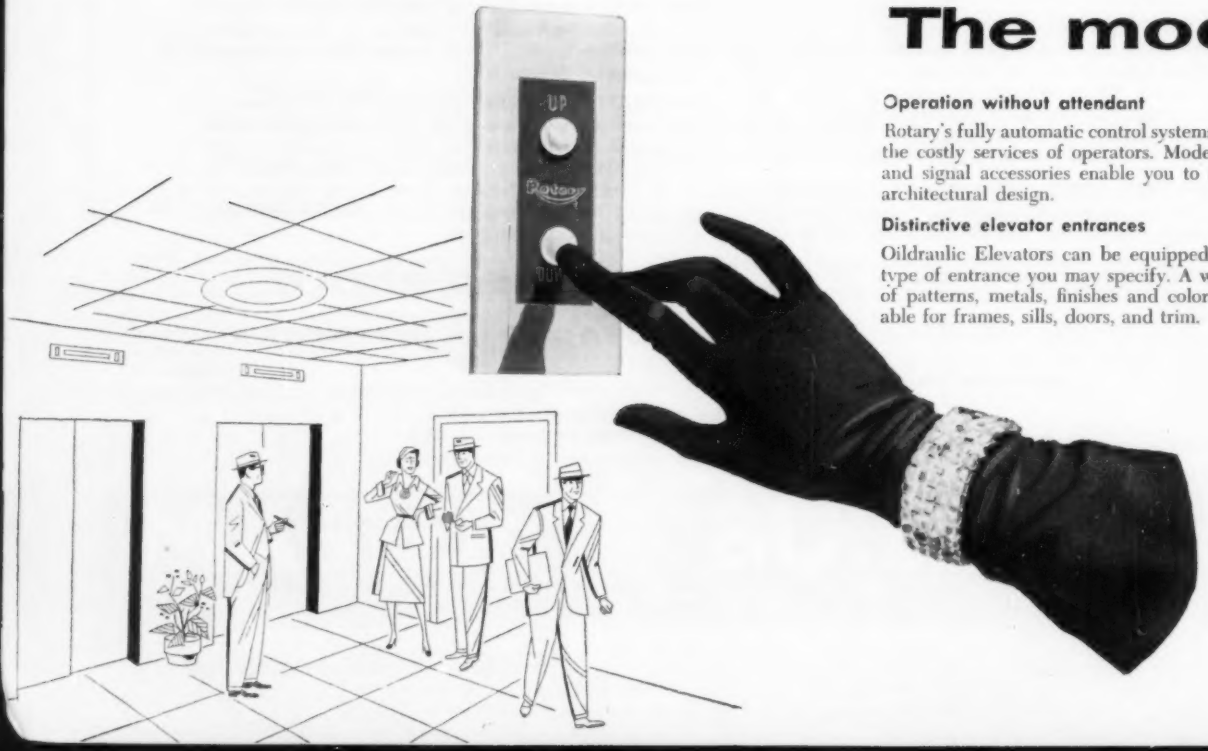
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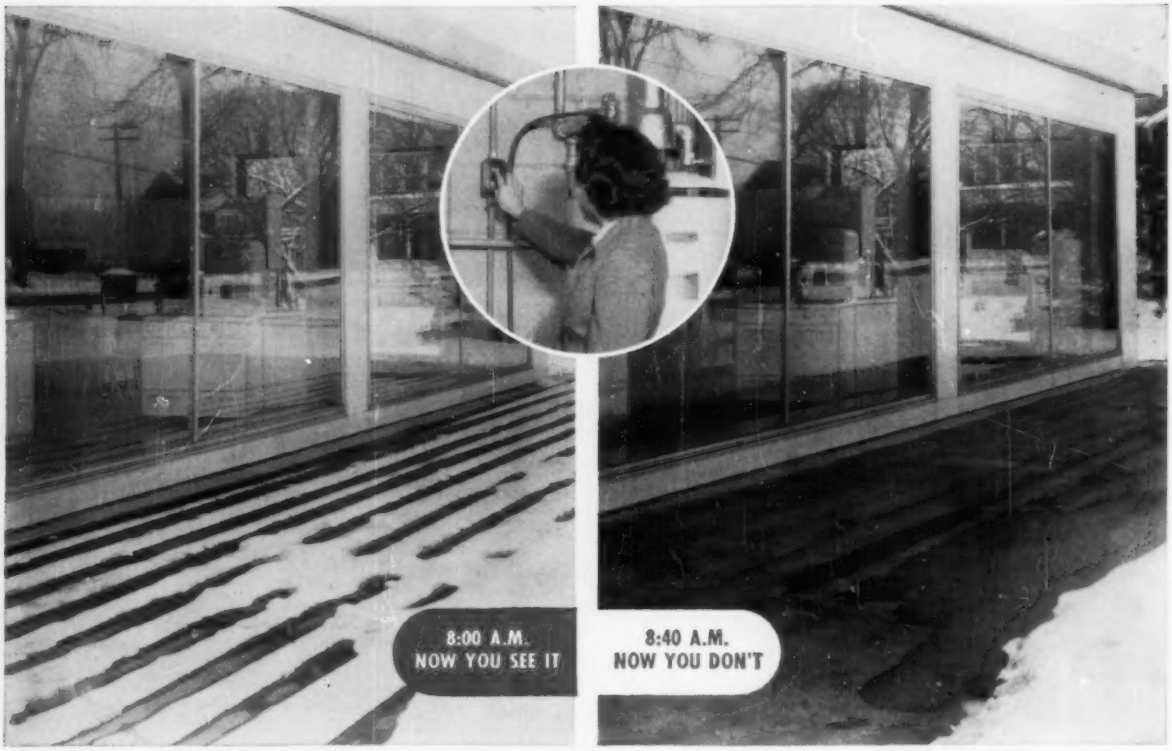
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ARCHITECTURAL RECORD

January 1956 Vol. 119 No. 1

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COVER: photo by Samuel Chamberlain

Aesthetics by Slide Rule

In an industrialized world architects are called upon to think as engineers, are judged as engineers, are accepting the aesthetics of engineers. But there is still the need "of holding before men the true and enduring content of their civilization . . . our architecture will ultimately return to these enrapturing springs."

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M.I.T. Chapel

At M.I.T. the students of all faiths will worship in a chapel whose design has focused on the common denominator: meditation.

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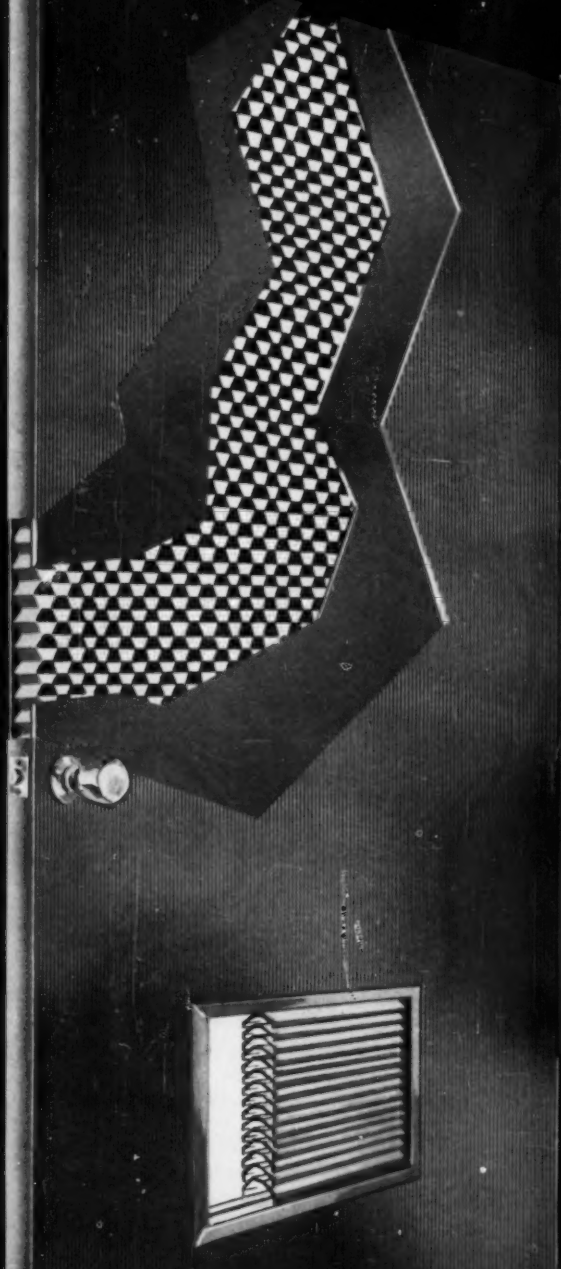
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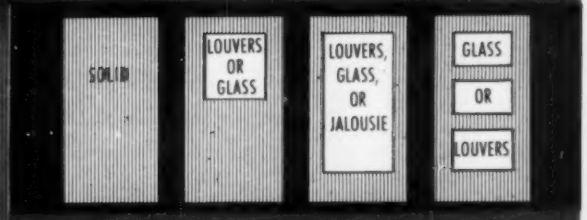
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THE RECORD REPORTS

PERSPECTIVES

ARCHITECTURAL CRITIC: the anonymous letter writer who advised police in Buffalo he planned to bomb the main post office, an art gallery and the New York Central Railroad Terminal because they were all "architectural monstrosities."

THE INTEGRATED HOSPITAL got a $200 million push from the Ford Foundation's recently announced program making that amount available for new grants to all of the nation's approximately 3500 voluntary, nonprofit hospitals. "All hospitals," said the Foundation's statement, "need to expand the scope of their services if they are to serve satisfactorily as health and rehabilitation centers in their communities." The grants, in amounts ranging from $10,000 to $250,000, must be used for improvement of or addition to facilities or services, additions to or training of personnel, or conducting research; they may not be used for operating expenses or services currently being performed. The Foundation noted the need for "several hundred thousand" additional general hospital beds, the need to replace many old and obsolete buildings and the dilemma of the hospitals in the face of rising costs of both hospital construction and hospital operation. "The pressing need," the statement said, "is for funds to expand or modernize present facilities, and extend services to keep pace with the rapid development of medical science."

CONSTRUCTION will be our major industry, the sun will be our major power source and the most important raw material will be water" in the year 2000, according to science consultant George R. Price, writing in the December issue of *Challenge*, monthly publication of New York University's Institute of Economic Affairs. Mr. Price believes, in fact, that construction will be the major U. S. industry by 1980. "As America becomes ever richer, desires for food and clothing will be more fully met, so that people will inevitably take advantage of the opportunity to have spacious, luxurious housing. Furthermore," Mr. Price adds, as though relating a series of unmixed blessings, "automobiles will largely give way to battery-powered helicopters, with automatic radar controls to make them as safe as railroad travel now is. These will permit the break-up of cities into vast suburban-type areas." As for the house of the future: "By 1980 or 1990 houses will very likely be constructed largely of a vitreous foam. I foresee furnaces borne on trucks that will melt a mixture of sand, alkaline rocks and limestone, obtained locally where possible. The molten glass thus created will be mixed with air and blown out through hoses to produce foundations, exterior walls and roofs of large ranch-type houses. Walls a foot thick will be quickly and cheaply built up in any shape desired. They will be sturdy, fireproof and give superb heat and sound insulation. Outer surfaces will be smooth and hard, made from solid glass unmixed with air and colored by pigments added to the melt." Although Mr. Price does foresee some practical difficulties to be overcome before housing ceases to be "the industry that capitalism forgot," he cheerfully predicts that "around 1975, barriers of inertia, local ordinances and restrictive union rules will collapse under the pressure of the new construction methods."

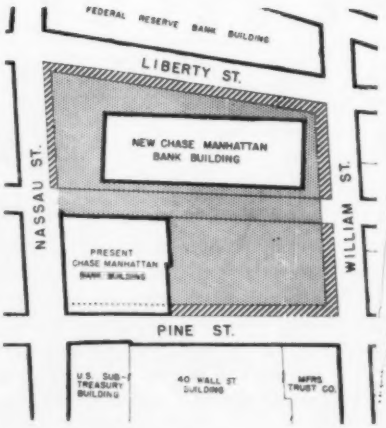
TOMORROW'S HOUSE was also the subject of a talk last month by Jay Doblin, director of Illinois Institute of Technology's Institute of Design and a former executive designer for Raymond Loewy Associates. *He* said tomorrow's houses will have cushioned bathrooms, radio-frequency cooking units and beds that never need to be made. The entire bathroom, said Mr. Doblin, could be molded in one piece of a soft material like sponge plastic — this would cut down "tremendously" on home accidents and eliminate joints where dirt and water now collect — and heated "from within," thus avoiding cold, clammy surfaces. In the kitchen of the future, Mr. Doblin went on, the housewife's most important appliances will be not for food preparation but for food storage — a compact radio-frequency unit will do the cooking job and "cooking as we now know it will be considered strictly a hobby." And tomorrow's bed, as Mr. Doblin describes it, will have a radio-frequency heating unit that will encircle the sleeper and keep him comfortably warm — "the necessity for covering would be only a matter of privacy"; will fold away automatically and be "sterile cleaned" when not in use; will have its softness or firmness regulated hydraulically or pneumatically. . . .

THE AIR ACADEMY," says the lead article in a recent issue of the Baltimore Chapter A.I.A.'s monthly publication *Architects' Report*, "is to be a 'factory for birdmen.' Of course it is. Where in the language of Webster or of the poets could a more exact definition be found? . . . The tragedy of those words lies, now that the controversy has lessened, not in any serious harm to the architect's central idea for the academy itself but in the dubious future of his chapel. . . . Here was a design done in the truest heritage of the American fighting man. The chapel was a campaign tent set up on the field of battle for communion, with helmet off and rifle in readiness. None of your stained cathedral glass, swinging censers and Gregorian chants, but a chapel to the God of Moses on the march, to the God of Washington kneeling in the snows of Valley Forge. One could almost see the light of a candle through canvas. No airman cadet could enter it without sensing his dedication to the fighting for which he was being prepared. The stripped darkness of the moments before a hundred beaches of Normandy and of the Pacific were expressed there for him to feel. . . ."

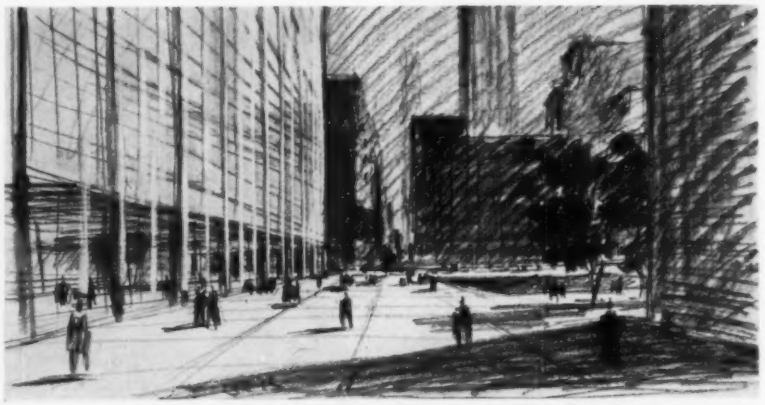
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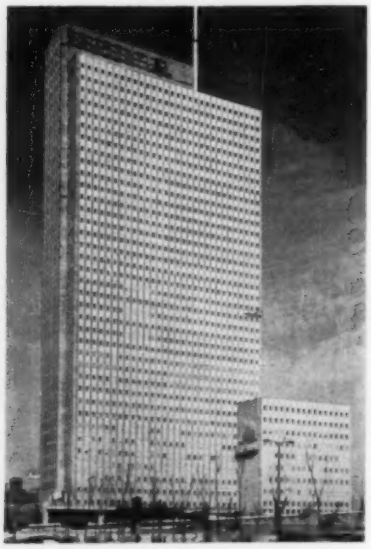
BUILDINGS IN THE NEWS

CHASE MANHATTAN BANK last month announced tentative plans for a $75 million headquarters development in downtown Manhattan — Skidmore, Owings and Merrill, architects. No information about the design of the building was made public except that it will probably be 50 to 60 stories in height; but there was big news in the site plan (right), which proposes a building to occupy only about 30 per cent of a two-block area. The plan would thus introduce an open plaza as large as the Piazzo San Marco into the heart of the world's most congested city district (in model photo, Chase project is shown as white block among existing towers). "Several floors" of vaults, service facilities and office space would extend under the plaza area; this and what the architects describe as "the extreme simplicity of the building design" which produces "an exceptionally high proportion of usable space" are said to give the plaza concept an economic as well as human advantage over more conventional schemes. A 1000-car parking garage (center foreground in model photo) would be constructed on a site one block from the plaza. The City of New York has announced plans for a 750-unit Title I middle-income housing project only a few blocks away









PRUDENTIAL INSURANCE COMPANY OF AMERICA dedicated its $40 million Mid-America Home Office Building in Chicago (photo at left above — Naess & Murphy, architects; George A. Fuller Company, builder) on December 8, seven years after completion of its first regional home office building in Los Angeles (rendering at right above, showing third wing now under construction; Welton Becket & Associates, architects) and six years after initiating the intricate negotiations for its site on and above the Illinois Central Railroad tracks at Randolph Street — a site comprising 540 separate parcels of land for caisson holes and 10 "air lots" amounting to 143,000 sq ft of air. The building, second largest and second tallest U. S. office building outside New York City, has over a million sq ft of space in a 41-story tower and 11-story lower section. It is supported on 31-ton steel columns bolted to steel plates set on 250 cylindrical concrete caissons that reach 100 ft down to the bedrock of the Niagara shelf. Walls are unbroken vertical limestone-faced piers two ft eight in. wide and vertically fluted aluminum spandrels

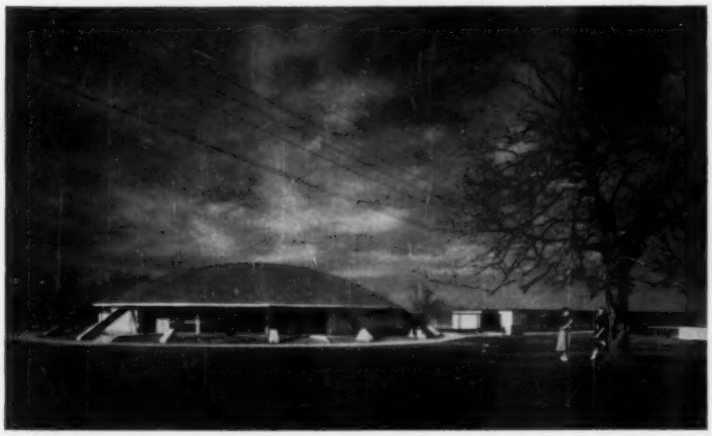


NINE BUILDINGS CITED AS "TEXAS ARCHITECTURE—1955"





FIRST HONOR AWARDS (Non-Residence) in the annual competition sponsored by the Texas Society of Architects were (below) A & M Consolidated High School, College Station, Caudill, Rowlett, Scott and Associates, Architects; (above) St. Stephen's Chapel, Austin, Fehr and Granger, Architects. Winners were exhibited at Dallas State Fair









HONOR AWARDS (Non-Residence) went to four buildings (above and next page). Left: Stewart Company, Dallas, Harwood K. Smith and Joseph M. Mills, Architects. Right: Presbyterian Church, San Antonio, Milton A. Ryan, Architect

(Continued on page 12)

(Continued from page 11)





HONOR AWARDS (Non-Residence) went also to the buildings above. Left: Engineering Office and Classroom Building, U. of Houston, Caro, Austin & Evans, Architects. Right: St. Mary's Student Center, College Station, William Nash, Architect







AWARDS OF EXCELLENCE FOR RESIDENCES were given for the three houses shown here. Above left: John G. York Residence, Harlingen, Tex., John G. York, Architect. Above right: Richard M. Hardison Residence, Houston, Bolton & Barnstone, Architects. Left: John A. Watson Residence, Harwood Taylor, Architect. Jurors for the 1955 Texas competition were Harris Armstrong of St. Louis and Charles Colbert of New Orleans

(More news on page 15)

MEDICAL RESEARCH CENTER WITH SPECIALLY DESIGNED REACTOR PLANNED FOR BROOKHAVEN

Eggers and Higgins are architects for laboratory (square building, far left), hospital (circular buildings, right) and reactor building (at rear — not shown) of $6 million new center for Brookhaven National Laboratory, Upton, N. Y. Reactor will be one of first two in U. S. designed for medical research and treatment



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Try this experiment. Take a piece of multiple accordion aluminum. *(We'll send you some free samples.)* Hold it very close to your cheek without touching. You'll be surprised! Notice how, in seconds, your cheek feels a glow of warmth. Why? Because the heat rays which are leaving your face (although without temperature), are being thrown back again at a 97% rate by this amazing insulation. Reflected to your cheek, the rays are now reabsorbed at a 90% rate and turned into heat.

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Put multiple sheets of prefabricated accordion aluminum insulation inside wall and roof spaces, and you bar the path of this thief. For multiple accordion aluminum throws back, with 97% reflectivity, the heat rays that strike its surfaces. It also retards, most effectively, the flow of heat by Convection, Conduction, and Vapor Flow.

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*Patent applied for.



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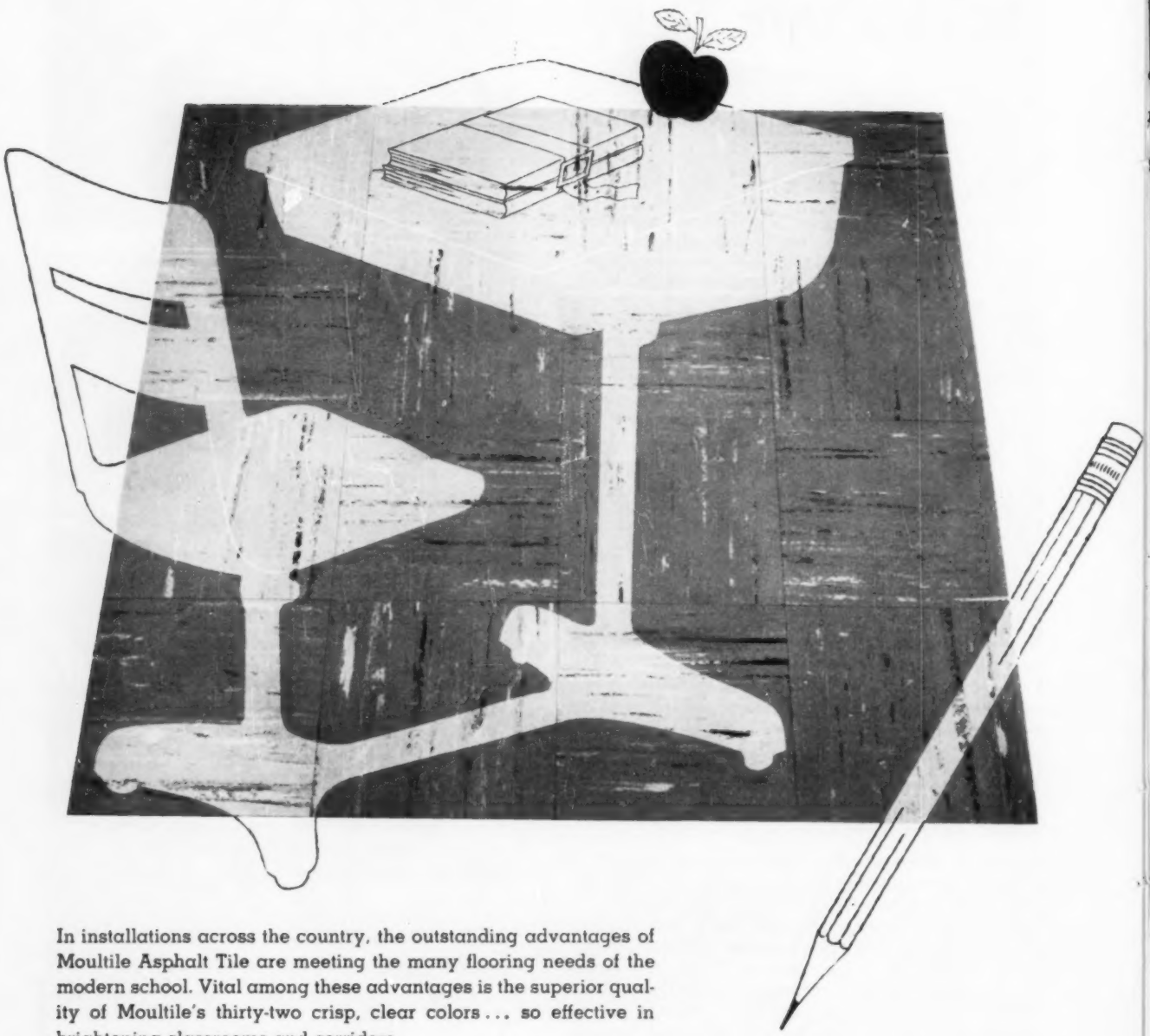
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The State of Construction

Records were tumbling once more as F. W. Dodge Corporation announced the latest totals for construction contracts awarded in the 37 states east of the Rockies. In fact, the November figures produced no fewer than eight new records. For details, page 346.

Who Wins?

The architecture of the Smithsonian's proposed National Air Museum (AR, Sept 1955, pages 163–170) became embroiled last month in a controversy over future development of the city plan of Washington, D. C.

The question was whether New York realtor William Zeckendorf, whose firm of Webb & Knapp has a reputed $500 million investment in its proposal for redevelopment of Southwest Washington, would force the National Capitol Planning Commission to abandon long-standing plans for a 10th Street site for the Smithsonian's new building, which would be just across Independence Avenue from its present buildings and easily accessible to visiting tourists, in the heart of downtown Washington.

The proposed site is unacceptable to Mr. Zeckendorf because he believes it would block the 10th Street entrance to the projected new South Mall which he insists is essential to the commercial success of his 400-acre redevelopment project.

An alternative site between Independence and Fourth, Seventh and C Streets S.W., has been rejected by the N.C.P.C. because it would entail closing off the lower part of Maryland Avenue. Other available sites are all in outlying areas, and many feel the museum's benefits would be lost to too many tourists if it is not located near other important museums and sights they go to Washington to see.

An alternative redevelopment scheme for the Southwest area, which put the South Mall entrance at 8th Street and gave the Smithsonian its preferred 10th Street site, was considered by the N.C.P.C.'s subcommittee on Southwest redevelopment but dropped after it had been strongly opposed both by George A. Garrett, President Eisenhower's personal "trouble-shooter" for the Southwest project, and I. M. Pei, chief architect for Webb & Knapp.

The design of the Air Museum, for which McKim, Mead & White have prepared preliminary plans, got into the discussion by the back door, after Douglas Haskell, editor of *Architectural Forum*,* was quoted by Washington newspapers as likening the argument over a downtown site to "a dispute over the proper way to bring an elephant into a church." According to the newspaper stories, Mr. Haskell charged that so large a building as the proposed museum would overshadow the Capitol and belonged, not downtown, but on the outskirts of Washington. "The only reason this debate over a proper downtown site is possible," Mr. Haskell was reported by the *Washington Post and Times-Herald* to have said, "is that the architect's drawings have fudged the size of the structure. Trees that look like trees in the sketches would look like a hedge in actual relation to the building."

* And member, New York chapter, A.I.A.



— Drawn for the RECORD *by Alan Dunn*

Congressman Frank Thompson (D — N. J.) picked up and echoed Mr. Haskell's criticisms, and in a statement issued by his office chided Dr. Leonard Carmichael, Smithsonian Secretary, for commenting publicly that Mr. Haskell was not fully informed on some points.

In none of the ensuing published discussions was the point made that, in fact, all of the Mall buildings approach, and many exceed, the size, dimensions or cubage, of the Capitol; the 90-ft setback rule has been sufficient to assure dominance for the great dome which rises 287 ft above a 75-ft hill. The Air Museum would be a mile away, on lower ground, and at most 90 ft high; two thirds of it from 18 to 60 ft high. It would be relatively low compared with the buildings of the Department of Agriculture, the Department of Commerce, the Triangle group, the Museum of Natural History and the National Gallery of Art. In horizontal dimensions alone, the largest and highest portion of the Air Museum is exceeded by the overall dimensions of all of the buildings just mentioned, and perhaps of others.

As for the inference about scale to be made from the drawings, a review of the only published drawings (in the RECORD's September article) indicates they show trees planted approximately 32 ft on center and appearing to be 50 to 60 ft high, a fairly conventional assumption for the height of full-grown trees.

On the central issue, the National Capitol Planning Commission at its December 16 meeting seemed to avoid a final decision by (1) approving nearly the entire Webb & Knapp preliminary land-use plan for the Southwest redevelopment, (2) withholding approval of the relatively small portion of the plan which involves the disputed site, and (3) asking the Smithsonian to find a location for its project outside the Southwest area. The hope is for development of an acceptable compromise before the next meeting of the Commission in February.

Bright Beginning

By all accounts, the first meeting of the Architectural Student Forum sponsored by the American Institute of Architects at A.I.A. headquarters in Washington

(Continued on page 16)

MEETINGS AND MISCELLANY

(Continued from page 15)

November 21–22 was a smashing success. The first conference ever held at which each of the nation's 65 architectural schools was represented by at least one student, the Forum was made possible by A.I.A. assumption of expenses for one delegate from each school; 86 students attended in all. They formed a permanent organization, headed by James R. Barry of Rice Institute, Houston, as chairman, and Miss Laurie Mutchnick of Pratt Institute, Brooklyn, as secretary, with six regional student representatives; made plans to begin immediately publication of a news-sheet to be converted to magazine format later on — students to edit, A.I.A. to publish; and adopted a 25-point program for improving student-profession relations. The program included enthusiastic endorsement of the A.I.A.'s architect-in-training program as set up in the "logbooks" which are just getting their first trial runs in Alabama, Colorado, New York and Oregon. The log book is intended to constitute a record for the architectural graduate's activities from degree to license, showing time spent in various kinds of work and enabling him and his professional adviser to assess his progress against a background of concrete information. Also on the student Forum agenda were talks by Nathaniel Owings, of the New York architectural firm of Skidmore, Owings & Merrill, who discussed the opportunities and responsibilities of the profession; architect Hugh Stubbins, of Lexington, Mass., who described the evolution of his design for the U. S. Conference and Exhibition Building for the Berlin International Building Exposition of 1957; Carl Feiss, Washington, D. C., planning consultant, who discussed the projected student publication; and Edmund R. Purves, A.I.A. executive director. James M. Hunter of Boulder, Colo., chairman of the A.I.A.'s Committee on Education, and Beryl Price of Philadelphia, chairman of the Committee on Chapter Affairs, were present as observers. At last month's meeting of the executive Committee of the A.I.A. Board of Directors, official approval was given to (a) continuance of the student forums on an annual basis; (b) Institute subsidy of a student newsletter this year and later consideration of a subsidy for a student magazine; (3) Institute assistance in setting up one or more circulating exhibits of student work; (d) a meeting of the student organization's executive committee during the Institute's annual convention, and if required, at another time, with the Institute to bear the expenses.

LE CORBUSIER AND NIVOLA

Editor, ARCHITECTURAL RECORD:
In the November 1955 issue of ARCHITECTURAL RECORD [pages 180–187] there is an article by Mr. Frederick Gutheim on Le Corbusier. I should like to point out the incorrect notion that I had such "terrific" influence on Le Corbusier.

Le Corbusier gave me confidence and encouragement. I learned everything I know about plastic art from him. I gave him only my gratitude and affection, and the love of my family.

I would appreciate it if you would publish this in your next issue.

Sincerely,
Costantino Nivola
Graduate School of Design
Harvard University

Editor, ARCHITECTURAL RECORD:
With characteristic modesty Mr. Nivola disclaims his influence upon Le Corbusier. Such influence must be deduced by the artistic evidence, not the protestations of the parties themselves. Only the association is a matter of fact, not the influence.

Yet I cannot resist pointing out that my article was not concerned with "influence." On the contrary, my explicit concern was summarized in the sentence: "Genius searching for nourishment feeds on what its immediate environment offers and is inexplicitly selective." Sincerely,
Frederick Gutheim

The passage in question:

"Genius searching for nourishment feeds on what its immediate environment offers and is inexplicably selective. Little in the highly refined, intellectualized atmosphere of Paris could have provided Le Corbusier with the experience he was seeking. The opportunities opened up by his visits to New York at the time the United Nations Headquarters was being designed thus acquire a singular importance.

"During those years the decisive influence appears to have been exercised by a young, friendly Italo-American sculptor, Costantino Nivola, whose New York studio Le Corbusier used, and at whose Long Island cottage he spent many week ends. Nivola, probably best known for his warm and technically ingenious sand-concrete reliefs in the Olivetti showroom in New York, was then working as a typographer and art director of Interiors magazine. He is now on the faculty of the Harvard Graduate School of Design.

"At this point, with the assistance of Nivola and other professional sculptors who aided in translating Le Corbusier's ideas of polychromed sculpture into three-dimensional actuality, the gap was bridged between his plastic research of the war years and its application in architecture. In the end, his painting and architecture were once again united.

"Of greater importance, perhaps, was Le Corbusier's first association with an artist of the first rank who lived an utterly normal family life. Sharing this life, playing with the Nivola children, his emancipation from Swiss bourgeois ideals undoubtedly began here, and with the most profound application to the Marseilles apartment project and to Chandigarh. A new humanism, expressed in the requirements of the household and the community, is still being built on this moral change."

For Service to Construction

The Producers' Council has given its third Award of Recognition for Outstanding Service to the Construction Industry to F. Stuart Fitzpatrick, manager of Construction and Civic Development Department of the U. S. Chamber of Commerce. Mr. Fitzpatrick, who received the award at a dinner in Washington, has been with the national Chamber for 37 years and organized both its Trade Association and its Construction and Civic Development departments. He has been in the forefront of efforts to further building research and to encourage slum clearance and urban redevelopment.

N.S.P.E. and A.I.A.

Professional relations between the National Society of Professional Engineers and the American Institute of Architects are reviewed in the annual report of the N.S.P.E. to its membership. Noted as a

(Continued on page 20)

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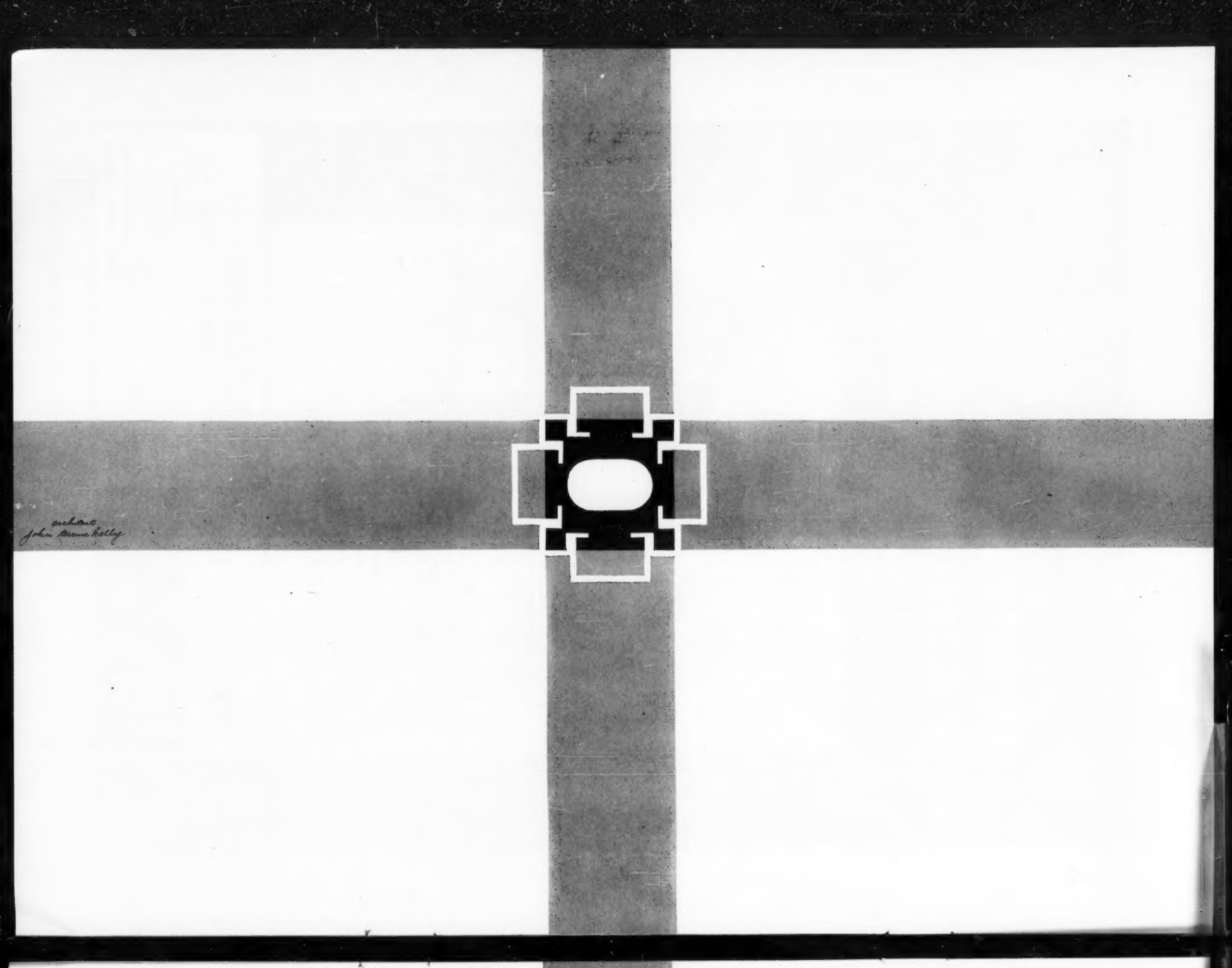
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THE RECORD REPORTS

MEETINGS AND MISCELLANY

(Continued from page 16)

major coöperative project was the effort toward development of a standard form of agreement between engineers and architects both for occasions when the engineer is the "prime professional" and for occasions when the architect is the prime professional. The two forms have now been completed in basic principle and after current reviews by committees of both organizations will be submitted to the governing bodies of each for approval and publication. Also nearing publication status is an inter-professional code of practice jointly developed by N.S.P.E. and A.I.A.

Modular Drafting Guide

A new pamphlet, "The Five Fundamentals of Modular Drafting," has been prepared by William Demarest Jr., A.I.A. secretary for modular coördination, as an aid for architects, structural engineers and draftsmen who are beginning to use modular measure. The pamphlet, which illustrates as well as explains the five basic rules, emphasizes that there is nothing difficult about conversion from traditional procedure — "before you are well into your second set of modular drawings, you will have begun to profit from the countless advantages offered by orderly dimensioning through Modular Measure." Single copies of the pamphlet are available free from: Modular Measure, A.I.A., 1735 New York Avenue, N.W., Washington 6, D. C.

U. S. vs U. S. S. R.

The widespread concern about the state of scientific and technical education in the United States from the secondary level up was reflected in last month's talk before the American Institute of Consulting Engineers by Dr. John R. Dunning, dean of the Columbia University School of Engineering and one of the nation's leading nuclear physicists. Dr. Dunning said a "radical reorientation" is needed to get American practice in preparing students for technical careers on a par with the Russian. "No high school anywhere in this country," he said, "has even one half the Russian requirements in mathematics, physics or chemistry." In the universities, Dr. Dunning described the accomplishment of a Soviet four-year program as equal to a five-year program in the U. S.; and he added that on the doctoral level, the situation is even worse, with "at least several times" more Soviet graduate students than U. S. Dr. Dunning, speaking at the Institute's monthly meeting at the Engineers Club in New York, called the U. S. trend "so downgrade as to be seriously disturbing." He asserted Soviet advances in science are threatening U. S. leadership and security and warned against underestimating Soviet scientists and engineers: "Those of us who have come up against them in competition have had the utmost respect for the quality of their scientific and engineering achievements."

Worth the Winning

The American Institute of Architects has announced its eighth annual program of National **Honor Awards for Current Work,** conducted "to encourage the appreciation of excellence in architecture and to afford recognition of exceptional merit in recently completed buildings." Awards will be made "for distinguished accomplishment in architecture" by an American architect (not necessarily a member of the A.I.A.) for any building in the United States or abroad, completed since Jan. 1, 1951. Entries are due at the Octagon, 1735 New York Avenue N.W., Washington 6, D. C., not later than March 1; registration closes January 5. Judgment will be made at the Octagon March 5–6, by a jury, appointed by the A.I.A. Board of Directors, to include five architects, at least one educator among them.

Architects are invited to submit entries for the annual **Church Building Architectural Exhibit** of the Annual National Joint Conference on Church Architecture sponsored by the Church Architectural Guild of America and the Bureau of Church Building of the National Council of Churches of Christ in the U.S.A. Awards will be given in six categories — churches above 300 seating capacity; churches 300 or less seating capacity; major additions or alterations; religious education facilities; combined ultimate master plan for church plant and its first construction unit; and "a hypothetical church." Complete information, and entry blanks, due February 14, may be obtained from Albert C. Woodroof, 1813 Pembroke Road, Greensboro, N. C.

Applications are due January 2 for the **1956 Lloyd Warren Scholarship, 43rd Paris Prize in Architecture,** providing $5000 for 18 months' travel and study abroad and in the U. S. This year's competition will be held from February 13 to March 19; applicants must be U. S. citizens with a degree in architecture or scheduled to obtain one by June 1956. Circulars of information available from: Max Abramovitz, Chairman, Committee on Scholarships, Beaux-Arts Institute of Design, 115 East 40th Street, New York 16, New York.

The fifth annual competition sponsored by the **Indianapolis Home Show Inc.** offers prizes of $500, $250 and $100 and six honorable mentions of $25 each for designs for "a midwestern suburban house for a family of six." The 50 best designs submitted will be exhibited at the 1956 Exposition of the Indianapolis Home Show, to be held April 6–15, and will also be considered for erection as the "centerpiece" of the 1957 Home Show. The competition, for which applications were due December 31, is open to all U. S. architects, architectural designers, draftsmen and students in recognized schools of architecture. George Bain Cummings, President of the A.I.A., is chairman of a jury which includes Wesley P. Martin, A.I.A., Howard L. White, A.I.A., and two builders.

The tenth annual **Electric Sign Design Competition** sponsored by the National Electric Sign Association invites entries from all comers till January 31 — no limit on number of entries per contestant. Prizes of $500, $200, $100, and $50 and six honorable mentions of $25 each will be given for the best desings for an electric sign for an existing used car lot. Complete contest rules are available from: N.E.S.A., 10912 South Western Avenue, Chicago 43, Illinois.

Exercises preliminary to the selection of the 67th winner of the **Rotch Traveling Scholarship** will be held in April. Applicants must be American citizens whose architectural record includes study *or* experience in Massachusetts. A statement of requirements may be obtained by writing William G. Perry, Secretary, Rotch Traveling Scholarship Committee, 955 Park Square Building, Boston 16, Mass., before March 1.

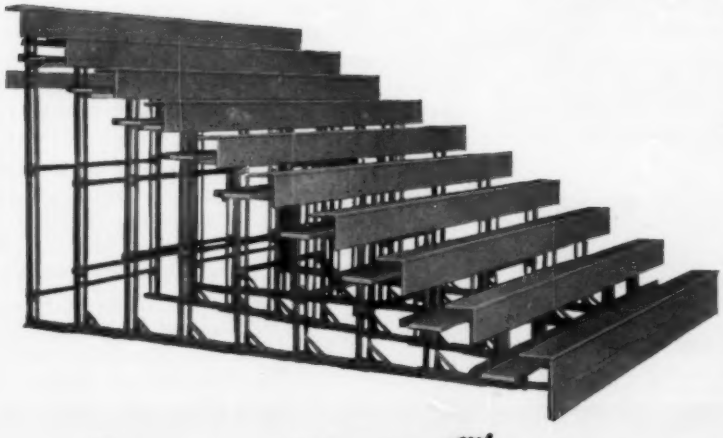
(More news on page 24)

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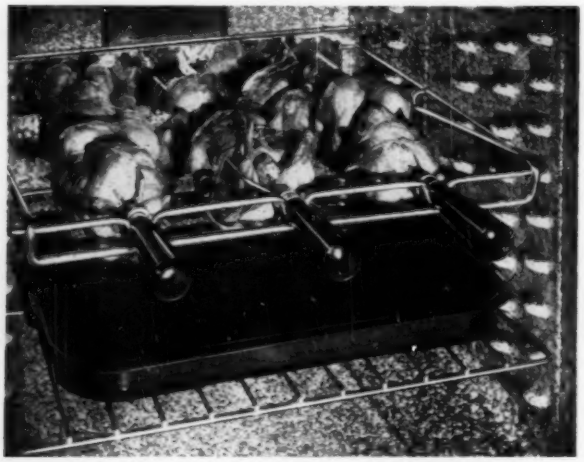
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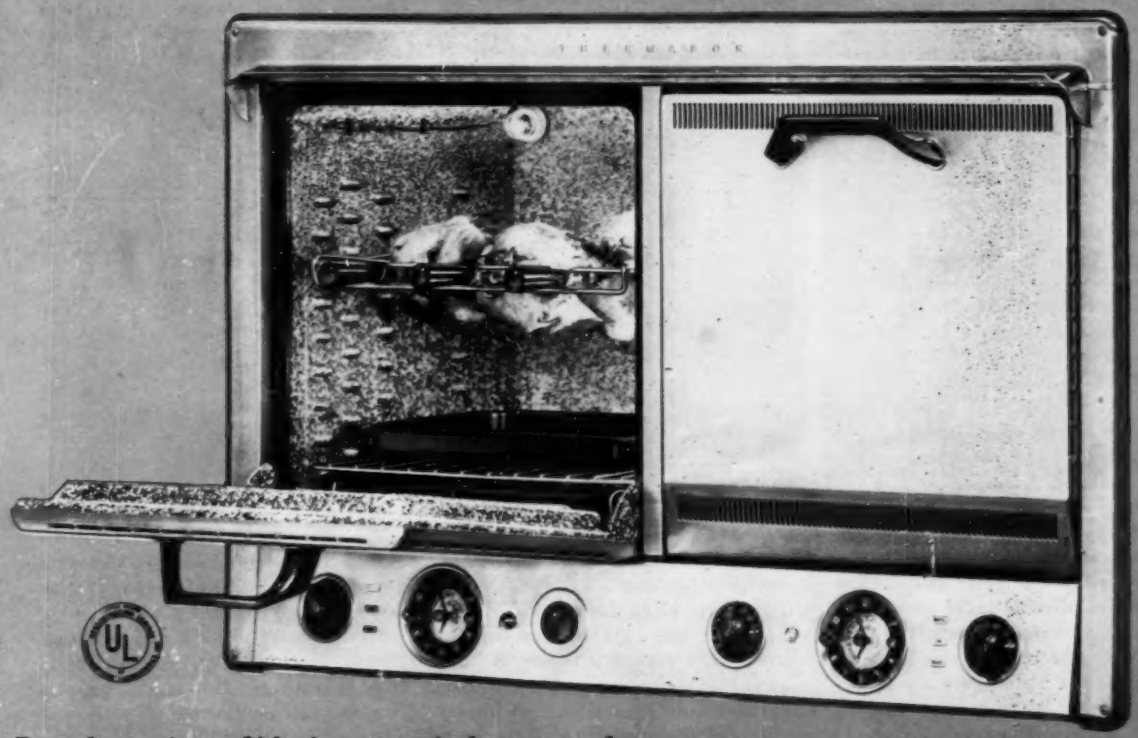
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Architectural Criticism: II

MONTGOMERY SCHUYLER ASSESSED THE REQUIREMENTS OF A NEW AGE

Montgomery Schuyler was, in point of content, the RECORD's first critic; his piece on the Romanesque Revival in New York was the first article in Volume I, 1891. In his own time, he was not, perhaps, regarded as the first critic in point of rank, nor, as another American architectural critic has called him, "the only architectural critic America has produced." Schuyler was born in Ithaca, N. Y., Aug. 16, 1843, and died July 16, 1914; at the end of the Civil War he came to New York to join the *World*, and left it in 1868 for the *Times*, where he was an editorial writer until 1907. From 1885 to 1887 he was managing editor of *Harper's Weekly*. In fact, his training and experience were chiefly journalistic, not at all the sort of scholarly architectural training of most of his contemporaries, and he had little patience with the history of architecture or its application to 20th century building.

Schuyler was a critic, of course, and not a philosopher or a reformer. If architects designed in the Gothic or Classic mode, he accepted this fact and discussed their works in light of it. But if he accepted the fashionable styles, he felt also that they clearly did not serve the current need. In December 1909 he harked back to the Chicago World's Fair and, apparently taking a leaf from Louis Sullivan's book, stated, "[The Chicago Fair] renounced altogether the notion that architecture is an art of expression founded on the coarse art of building. According to that notion, every building is at once the satisfaction and the expression of its own purpose and requirements. By the distinct apprehension of the purpose, by the faithful following out of the requirements, the architect may attain to making a work of art a real 'creation,' like an organism of Nature, which is simply the expression of its purpose and its conditions. . . . That was originally and primitively the case with all the architectural forms which have lasted, which 'have pleased many and pleased long'. . . . In work in which the architect lets the special requirements of his building govern its disposition, and its disposition its architectural development, he is, given fidelity and skill, rather 'growing' than 'designing' a building, and he is standing a chance of getting his work admitted to the category of natural organisms. In so far as its purpose and disposition are individual and peculiar will the architectural expression be individual and peculiar, which is to say, 'original.' There is no other originality worth talking about."

Schuyler was, as a matter of fact, sympathetic to the Gothic revival, though even by 1891 it was *démodée*. His reasons, however, were based not so much on esthetics as on logic. Speaking of a small New York chapel, which bore little or no resemblance to historical Gothic architecture, Schuyler in June 1903 gave as his reason for his

Architectural Record, Sept. 1914



espousal of the Gothic principle: "This is what one means by Gothic when one praises 'Gothic' as eligible for modern uses, this structural, straightforward, expressive treatment, and by no means the forms in which this treatment found expression when the question was of expressing a vaulted structure. Historical Gothic is simply the most elaborate and successful illustration that history affords of the application of the principle. If it were faithfully and skillfully applied now it would result in forms having no superficial resemblance to those of the 13th century. There are diversities of operation, but the same law."

As for the Classic style, and most particularly the Beaux Arts "style," it was held in great disesteem by Schuyler who said in January 1912, "When the graduates of the Beaux Arts came back to go to work as 'single spies,' when Hunt came back, when Richardson came back, when Mr. Sullivan came back, they were content to employ their foreign training to give American solutions to American problems. Now that they are coming 'in battalions' so many of them seem bent upon importing the solutions, and even the problems, that it sometimes appears as if in our commercial and public architecture we should be reduced 'to babble a dialect of France.' To those of our Beaux Artists who look across the water for their inspiration and for their appreciation, it must have been rather a blow that, at the World's Fair in Chicago, Mr. Sullivan's Transportation Building, which some of the classicists, his colleagues, so strongly deprecated and resented, should have been the only erection which was worth to its designer the medal of a French artistic association."

In spite of his defense of the Gothic style, Schuyler would nevertheless have preferred no historical styles at all in American architecture, and as the Classic became increasingly popular, Schuyler became increasingly impatient. In a discussion of the works of Frank Lloyd Wright in April 1912, he interpolated, rather testily for Schuyler: "If you want a Catholic or Ritualistic cathedral, you cannot do better than to take an extant cathedral of the middle ages as your model. If you want a temple of which the public use is to make processions around it under the shelter of a portico, which procession may be represented in sculpture at the top of the wall, and a solid core of building within the portico which has no public use, by all means you should take a Greek temple for your model. But as of course you don't, why, of course, you shouldn't . . . parroting forms, whether antique or medieval, is not architecture. Working in styles is not architecture. One has often thought what a great thing it would be for the art of architecture if the student, after he has got his good in culture and refined perception out of the antique or the medieval models, should be able to use them instead of copying them, should, in fact, treat them as a scholar treats the classical models in literature, to refine and enrich his own compositions in the vernacular."

Schuyler's interest in architecture, ex-

(Continued on page 276)

BORDEN *first* IN FLOOR GRATING

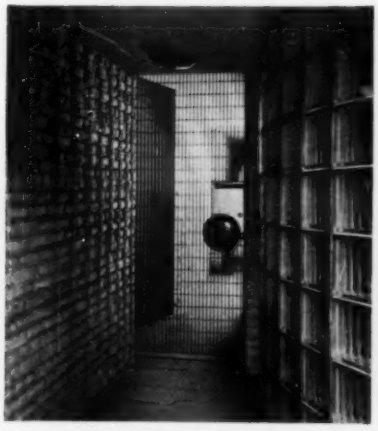
USES OF GRATING . . . WHERE ONLY BORDEN QUALITY WOULD DO . . .

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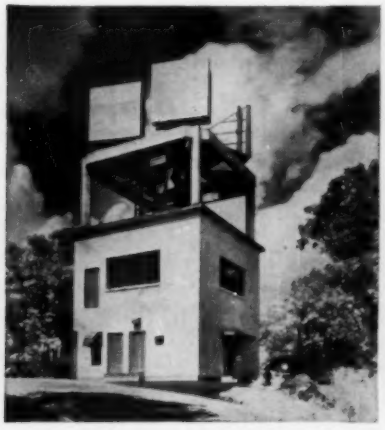
And remember . . . BORDEN manufactures every type grating in ferrous and non-ferrous metals.



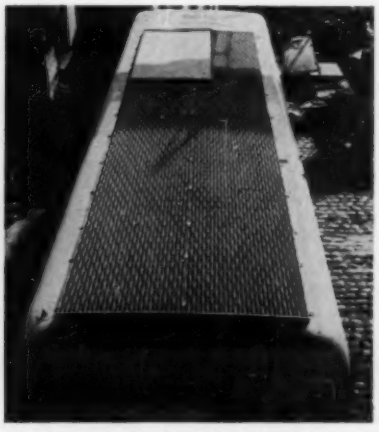
ON THE MERRITT PARKWAY . . . The recently installed Borden Roadway Grating shown here helps solve a drainage problem. Over 80% open, these Borden gratings give years of durable, minimum-maintenance service. And remember, SPECIFY BORDEN and you specify the best.



Only the finest precision manufacturing would satisfy the architect who designed this door. BORDEN is recognized as a leader in quality, custom-manufactured gratings.



Television relay stations and radar stations that gird our continent have adopted grating as standard outside platform material. It will not collect snow as most other platforms will.



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THE WHITE HOUSE CONFERENCE ON EDUCATION:

1800 Participants Discuss Six Topics For Four Days;
What, Educationally Speaking, Did They Bring Fourth?

Perhaps it was naive to expect truly great achievements of a conference on education that was thoroughly organized in very business-like fashion. One cannot pay too high a tribute to the organizational abilities of the Committee for the White House Conference on Education and in particular to the mastery with which Conference Chairman Neil McElroy, President of Procter & Gamble, conducted the general sessions. Praise for the hard staff work that resulted in marvelously smooth operation is properly due Clint Pace, youthful Director of the Conference, and his corps. Before and during the Conference (held November 28–December 1 at the Sheraton-Park Hotel, Washington, D. C.) there were dissents, even reportedly angry labor caucuses, and these occasionally erupted onto the floor; yet neither the few eruptions nor the occasional wistful joke voiced by McElroy, Pace or Finis Engleman (Connecticut Commissioner of Education and vice-Chairman of the Conference) seriously ruffled the surface dignity of the proceedings.

A spirit of earnest endeavor prevailed. The participants worked seriously, well shielded alike from the potential short-circuiting flashes of high tension in the background and from any flame of greatness that might have been kindled by the opportunity to express convictions tellingly.

Sufficient intellectual and executive capacity was present, from Ralph Bunche (U.N. Undersecretary), James Killian (M.I.T. President), Mildred McAfee Horton (Wellesley's former President) and Agnes Meyer (Washington, D. C., intellectual firebrand) down; about a third of the participants were educators; about a fourth were women; business, labor, finance, the PTA, boards of education, statecraft, the judiciary, and publishing were all represented. Conspicuously in the minority were the arts, as to either individuals or organizational representatives; although author John Hersey and two architects (Henry L. Wright, F.A.I.A., of Los Angeles in his capacity as Chairman, Committee on School Buildings, A.I.A., and W. Parker Dodge, A.I.A., Rensselaer, N. Y., who participated as president of a group of boards of education) did turn up. There may have been a few others. There were a great number of official guests from the U. S. and abroad who were dignified with the title, "Observers"; these were barred from the round tables although the press was admitted to them.

About 1800 participants proceeded at each of six sessions from a general meeting, where they listened to brief indoctrination speeches, to 166 "round" tables for two hours of talk and report-writing on one of the six Conference topics. Then the 166 table chairmen (a different incumbent for each topic) conferred and wrote reports at 16 tables; following this 16 second-round chairmen met at two tables; next, the two surviving chairmen wrote the final report. The well oiled machinery was notably evident in the speed with which 500 members of the press received copies of these six final reports, which became a third of the tripartite master report to President Eisenhower (the others: state and territorial conference reports and a special report, not made public, of the Committee for the Conference). A Conference weakness showed up blatantly: there was no voting of any kind; the Conference could not approve, disapprove or modify any of the six reports. Once written by two chairmen (who must have been fatigued after six to eight hours of constant discussion and frenzied authorship) each report was read to the whole Conference by one of its authors and, terrifyingly *ipso facto*, was added to the pile for Presidential perusal.

One of the minor eruptions previously mentioned came when Mrs. Agnes Meyer, who is generally credited with having forced the White House to recognize education's plight in the 1955 State of the Union message, objected strenuously to the non-approval procedure. Another came when a courageous housewife, Mrs. E. D. Campbell of Arlington, Va., requested on the opening day that there be an opportunity to present, consider and vote on resolutions expressing the sense of the Conference. Chairman McElroy summarily turned her down. Dissents or modifications could be made, the Conference was told, by addressing them in writing directly to the chairman or the director, and it was said such communications would receive the Committee's full consideration.

Although we were privately informed in advance that Henry L. Wright, F.A.I.A., would become at least a first-round table chairman at the session on school building needs (which he did), it is not fair to say that the conference was stacked as to personnel beyond the fact that most participants were appointed by State Governors. There were also 226 religious, fraternal, educational and professional organizations represented with one participant each. But the ways were so well greased and the agenda for each of the six topics covered so much to discuss in such a short time that it is no wonder the conferees seldom kicked over the traces, or that the reports were of a uniformly tremendous mediocrity. Thus, Report Number I, on "What Should Our Schools Accomplish?", contained in addition to 14 rather uninspiring specific recommendations, a startling statement advocating ". . . education necessary to . . . make an intelligent choice and *to effect necessary compromises on questions of public policy*" (italics ours) and assorted banalities about such matters as freedom to seek the truth — matters whose inherent, acknowledged merits were all but destroyed by the offhand manner of their inclusion. There was no mention of developing ability to reason, and little of practical or vocational education — although an addendum on the latter was belatedly promised.

Report II, "In What Ways Can We Organize Our School Systems More Efficiently and Economically?", was perhaps the most forthright in defining responsibilities and duties of citizens generally, of boards of education, professional educators and various levels of government; in recommending strengthening the U. S. Office of Education; and in scrupulously reporting minority opinions. Skipping Report III (on buildings) temporarily, Report IV, "How Can We Get Enough Good Teachers — and Keep Them?", also made specific recommendations to upgrade the teaching profession and its salary structure; but since the earlier report on educational aims had fallen far short of being inspiring, Report IV bogged down when it came to more than the obvious suggestions on how upgrading might be accomplished.

Report V, "How Can We Finance Our Schools — Build and Operate Them?", was supposed to be the explosive topic; Federal aid was the bogey, and the Report strongly advocated increased Federal money without any degree of Federal control over local school systems.

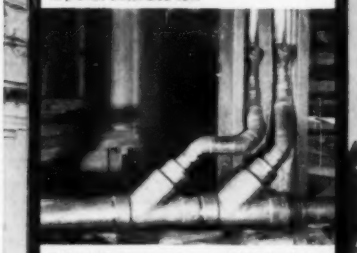
(*Continued on page 290*)



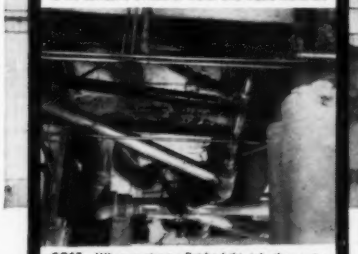
RIGID—NIBCO solder joint fittings, when properly installed, provide a piping system of continuous copper.



SMOOTH—The smooth interior surfaces of NIBCO cast drainage fittings match perfectly with the tubing, to provide unrestricted flow.



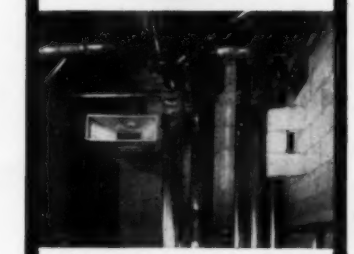
ENDURING—Copper tube and NIBCO A.S.A. fittings were specified for this job because of high resistance to the corrosive effects of water and waste material.



COST—When engineers finished this job, they actually found that the final installation cost of copper tube and NIBCO fittings was competitive.

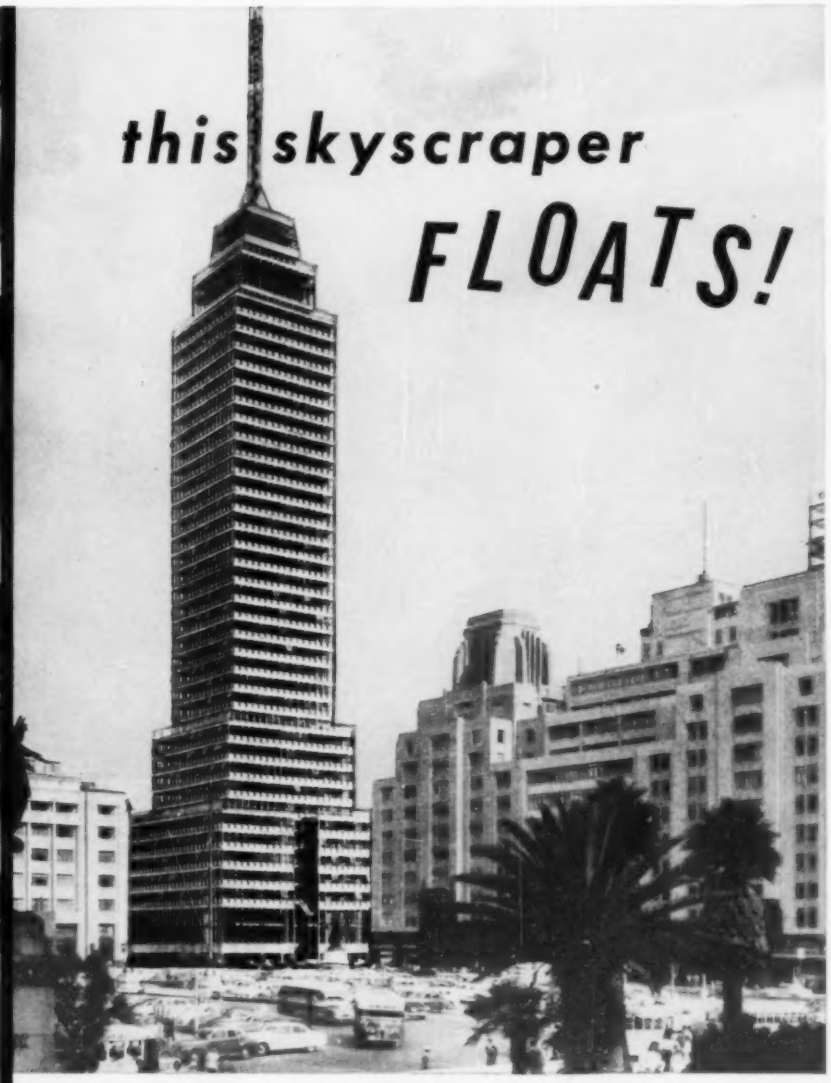
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The superstructure of this building was formed of extra-heavy steel because of the ever present possibility of earthquakes in this active volcanic zone.

The main floor was fabricated in four sections and mounted on screws. This enables it to be lowered in accordance with the natural subsidence of the ground level, forestalling the necessity of building steps UP to it, in the future.

The engineers on this job specified copper for all of the sanitary drainage, water supply and refrigeration lines. It's long life, light weight and high shock resistance made it the only logical piping medium. Seamless copper tube joined with NIBCO fittings assures long, trouble-free service—and at competitive prices.

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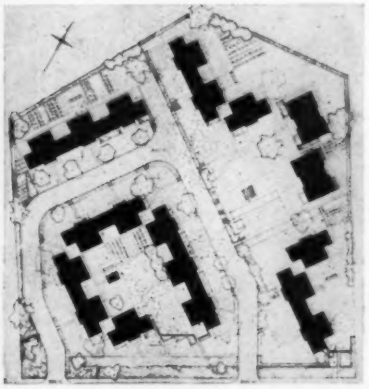
NAME.....

COMPANY.....

ADDRESS.....

CITY.....STATE.....







Gold Medal was awarded to Sharp & Thompson, Berwick, Pratt and Charles E. Craig, Victoria architects, for Kiwanis Village, a community of rowhouses for the aging; the jury "was impressed by the social aspects of this project and that such an institutional program could be carried out with such a high regard for human personality." Right: Governor-General Vincent Massey and R.A.I.C. president A.J.C. Paine at opening

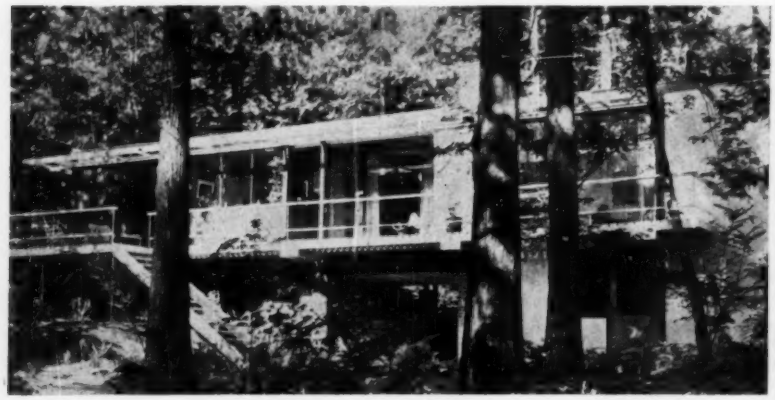
MASSEY MEDAL WINNERS ANNOUNCED: SEVEN FIRMS SHARE HONORS

The Massey Medals for Architecture were presented for the third time on November 18 at the National Gallery in Ottawa. Governor-General Vincent Massey officiated.

The Gold Medal for 1955 was awarded to the Victoria firm of Sharp & Thompson, Berwick, Pratt and Charles E. Craig for Kiwanis Village, a community designed for elderly pensioners in Victoria. In addition to its commendation of the design, the jury mentioned the landscape architecture by Wallace Ruff, of Eugene, Ore., and praised the provision made in the community for private gardens and places for group activities outdoors.

Silver Medals were presented in 10 of the 15 categories listed in the program: ecclesiastical buildings — St. Anthony's Church, Vancouver, B.C., Gardiner, Thornton, Gathe & Associates, architects; educational buildings — Toronto Teachers' College, Page & Steele, architects; office buildings — B. C. Sugar Refining Company, Semmens and Simpson, architects; industrial buildings — Simpson-Sears Ltd. and Photo Engravers and Electrotypers Ltd., John B. Parkin Associates, architects; commercial buildings — Convenience Center, Don Mills, Ont., John B. Parkin Associates, architects; hotels and restaurants — The Seaway Hotel, Toronto, A. Elken and R. W. Becksted, associated architects; miscellaneous buildings — head-

(Text continued on page 36; more winners on page 32)





Silver Award winners: for houses costing under $15,000, the Smith house in West Vancouver, by architects Erickson & Massey, "seems closely linked with the outdoors." For houses costing over $15,000, the Hamilton house in Ontario by architects Blackwell, Craig & Zeidler, was termed "a triumph in the adaptation to unfavorable site conditions"

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THE RECORD REPORTS

NEWS FROM CANADA

(Continued from page 30)



Winner of a Silver Medal in the church category, St. Anthony's Church, Vancouver, by architects Gardiner, Thornton, Gathe & Associates, was commended for "its modesty and refinement as a simple wooden building with low eaves and nave spanned with scissors trusses"

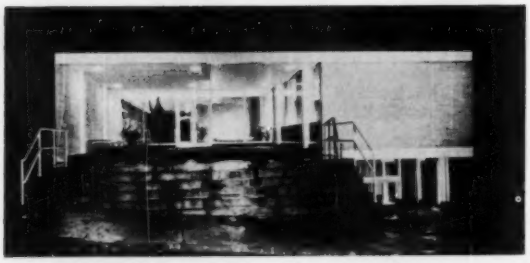




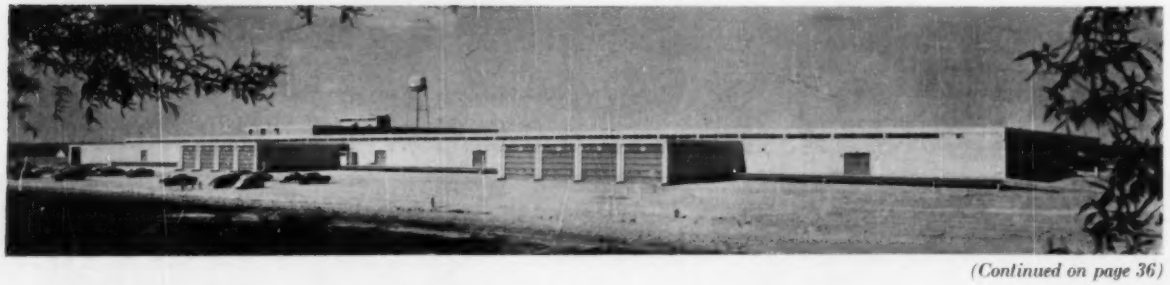


Silver Medals went to A. Elken and R. W. Becksted, Associated Architects, for the Seaway Hotel in Toronto, "a bold and successful attack on the problem using some of the best features of the one-story motel in working out the solution"; to architects Semmens & Simpson for the office building of the B.C. Sugar Refining Company, "a project which is in excellent taste, comfortable and elegant without ostentation"; and to Page & Steele, Architects, for the Toronto Teachers' College, which was considered "a very urbane building with a plant type suitable for many situations"





Three Silver Medals went to the firm of John B. Parkin Associates, Architects and Engineers, of Toronto, for Convenience Center (above) at Don Mills, Ont., where they were cited for "eliminating the customary anarchy of competitive advertising"; for headquarters of the Ontario Association of Architects (left), where they "made successful features of the combined exhibition space and ramp and the social space"; and for an industrial building group for Simpson-Sears Ltd. and Photo Engravers and Electrotypers Ltd., which "showed a complete mastery of industrial building form"



(Continued on page 36)

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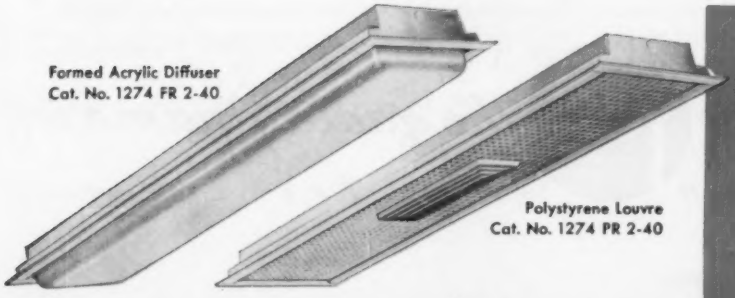
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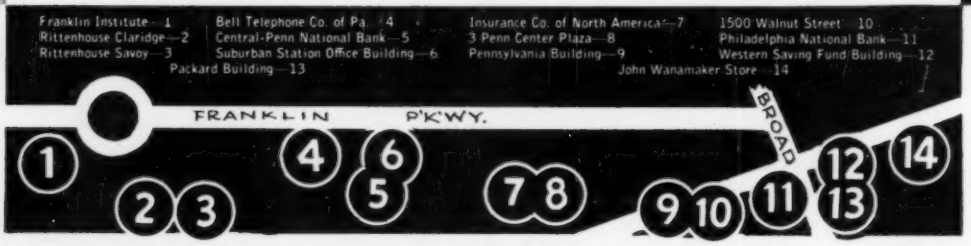
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York brought the right kind of air conditioning *to the Empire State Building, Cincinnati's Netherland-Plaza Hotel and to (27) of Miami Beach's largest, newest hotels. Denver's new Mile High Center, San Francisco's new Equitable Life Assurance Society Building and the striking new Colgate-Palmolive Building in New York have Yorkaire Systems, too. Famous York companions to 3 Penn Center Plaza are shown on the map above.*

Also the Connecticut General Life Insurance Co., the Congress Hotel, Rockefeller Center, Inc., the Ford Motor Co. and Atlanta's Fulton National Bank!

↑ Add Lumbermen's Mutual Insurance Co., Atlantic Refining Co., etc.

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JDS— this is a swell ad, but can't we include the other jobs I've listed? — L.Q.



Superb new 3 Penn Center Plaza features two compact 800-hp. York Turbo Water Cooling Systems located in the basement. They provide the cooling for 1200 Model CF Yorkaire Conditioners in the individual rooms.

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Your building can have the right kind of air conditioning, too. Call your York District Office (listed in the classified phone directory). Or write directly to York Corporation, York, Pennsylvania.

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MECHANICAL COOLING SINCE 1885

(Continued from page 32)

quarters for the Ontario Association of Architects, Toronto, John B. Parkin Associates, architects; private houses costing under $15,000 — Gordon Smith house, West Vancouver, Erickson and Massey, architects; and houses costing over $15,000 — the Hamilton house, Peterborough, Ont., Blackwell, Craig & Zeidler, architects.

The jury found no entries worthy of the Silver Medals in the hospital, recreational building, apartment and municipal building categories.

The Massey Medals for Architecture are sponsored by the Massey Foundation, a trust founded by the Massey family, to recognize outstanding examples of Canadian achievement in the field of architecture and thus give encouragement to members of the architectural profession and promote public interest in their work. Previous competitions were held in 1952 and in 1950. The program is administered for the Massey Foundation by the Royal Architectural Institute of Canada, through a committee headed by Prof. John Bland, director of the School of Architecture at McGill University.

The Jury of Selection for the 1955 Massey Medals competition was composed of chairman Lawrence B. Anderson, professor of architecture at Massachusetts Institute of Technology, A.J.C. Paine, president of the R.A.I.C., and Gordon S. Adamson, Toronto architect. The judges examined 119 entries, 29 more buildings than had been entered in 1952.

After a two-week stay at the National Gallery, the exhibition of the medal winners went on a tour which will take it to various art centers across Canada during 1956.



Gold Medal winners Charles E. Craig and Charles E. Pratt talk with Cyril J. G. Carroll, secretary of the R.A.I.C., at the exhibit opening



Left to right: Stewart Bates, president Central Mortgage and Housing Corp.; Mrs. Bates; O. J. Firestone, economic advisor, Department of Trade and Finance; Mrs. Firestone

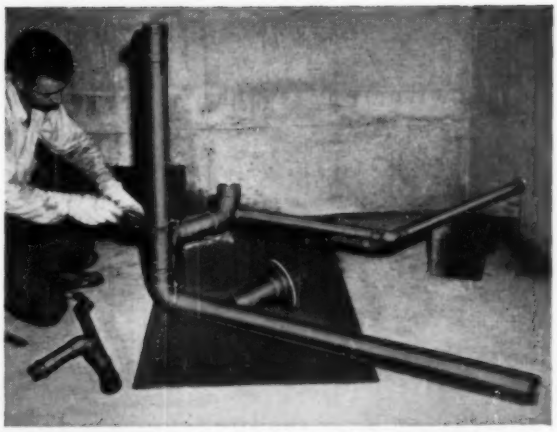


From left to right: representing the triply awarded firm of John B. Parkin Associates, John B. Parkin, John E. Owen and John C. Parkin

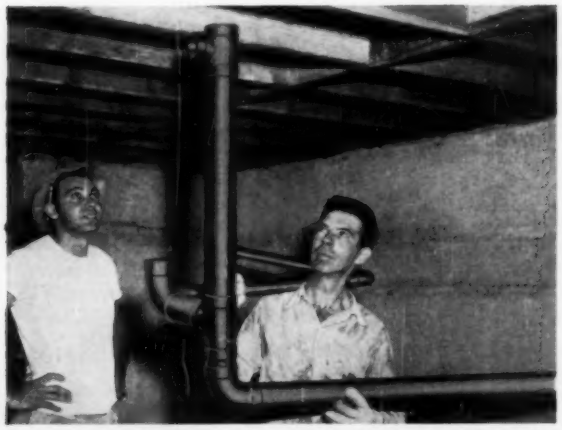
(Continued on page 40)



How COPPER TUBES make installations of sanitary drainage systems easier and faster in this 200-home low-cost housing development.



Pre-assembly saves time, cuts cost: The basement lines are assembled and soldered ready for installation as soon as first floor partition studding is completed.



Easier, faster handling: The section, comprising about 13′ of copper tube and 5 solder-joint fittings, weighs only 35 pounds, is handled by one man.



Fast, dependable connections: Solder joints are easy to make and they stay tight. The circular torch shown is a big time saver on a large job like this. (Water lines are also copper.)



Fewer joints and fittings: Copper tube comes in standard 20′ lengths. A 20′ length of 3″ Type M weighs only 53 pounds. Easy to cut, too.

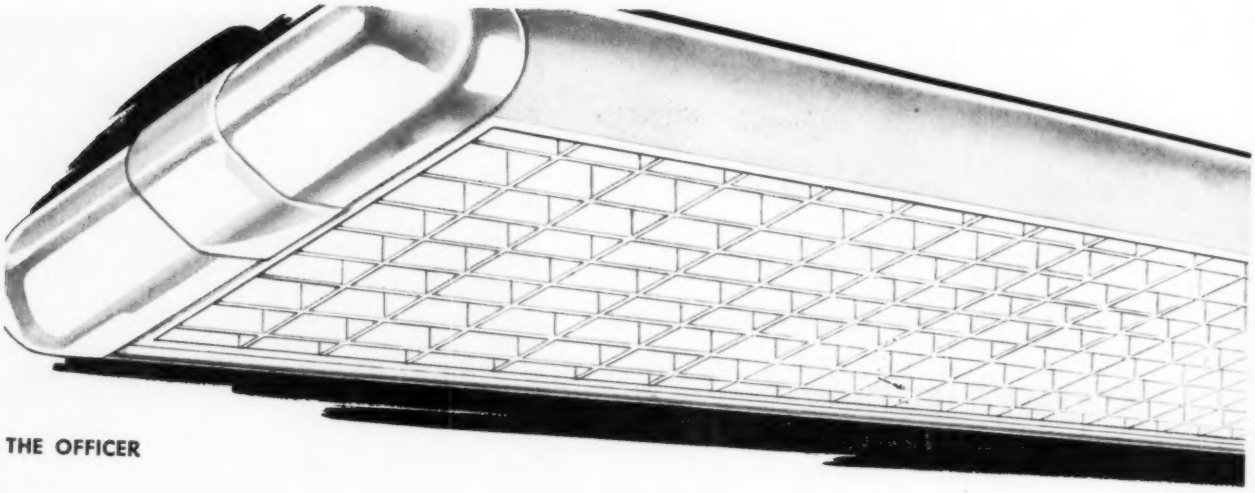


No costly, space-consuming plumbing walls: A 3″ copper tube stack with fittings can be installed within a standard 4″ stud partition.

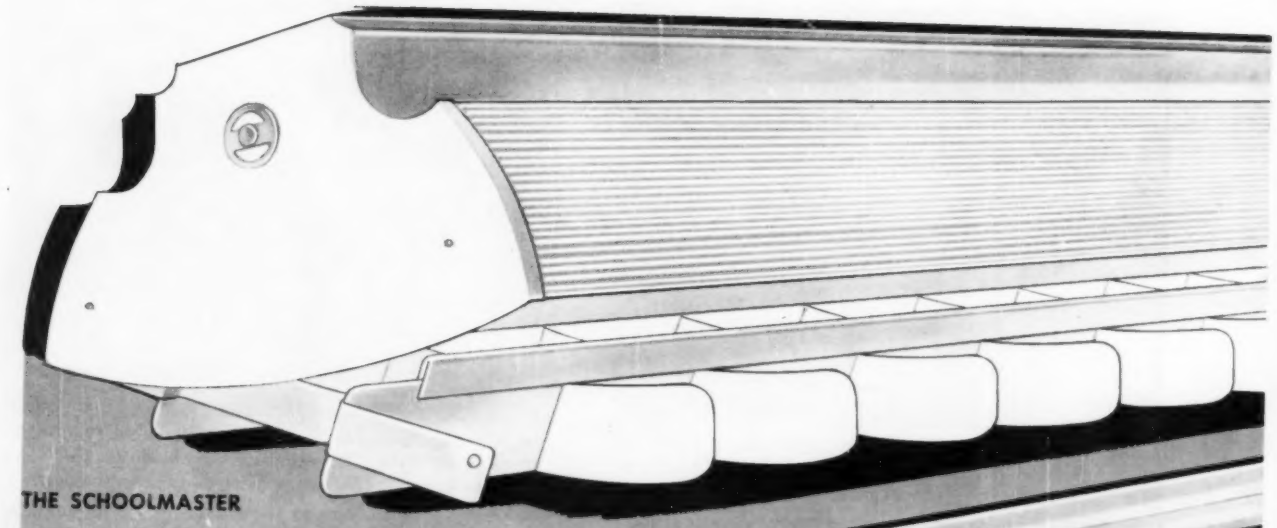
8834

Write for booklet, "Copper Tubes for Sanitary Drainage Systems." The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Limited, New Toronto, Ont.

ANACONDA® COPPER TUBES
Available through plumbing wholesalers



THE OFFICER



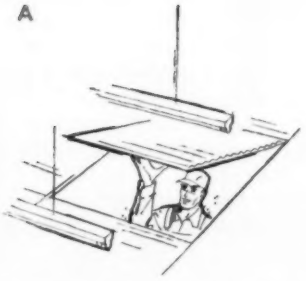
THE SCHOOLMASTER



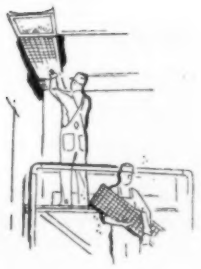
THE DIFFUSER REFLECTOR

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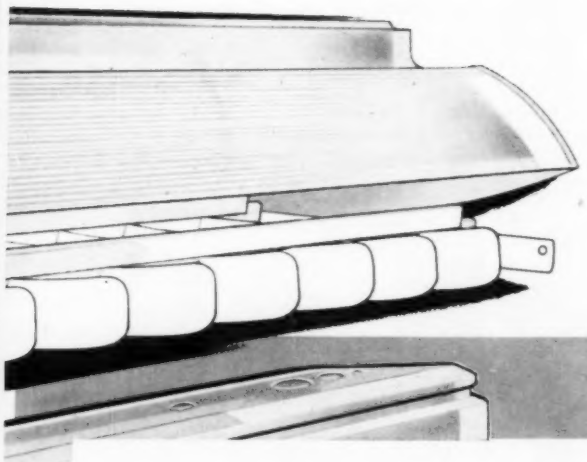




Low *Store* Lighting Installation Cost

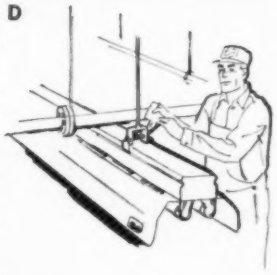


Low *Office* Lighting Installation Cost





Low *School* Lighting Installation Cost



Low *Factory* Lighting Installation Cost

When all things are Considered, the Better Lighting choice is BENJAMIN

Simplicity features like these mean *Low Cost from Start to Finish*

A Simplicity is the Password! Precision-engineered channels and louvers of *Benjamin Luminous Systems* fit together without on-the-job changes.

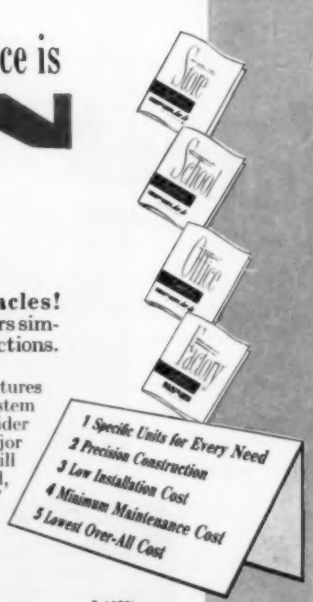
B Architectural Treatments are a Breeze with clean-lined units like the *Officer*, featuring a variety of incandescent inserts to help achieve unique effects.

C Trouble-Free Continuous Lines! No special couplings to fool with! Louvered units like the *Schoolmaster* are easily aligned by coupling them end-to-end.

D "Slide" around Ceiling Obstacles! Easy-to-adjust sliding clamp hangers simplify mounting despite ceiling obstructions.

These and many other installation features help to get every Benjamin Lighting System off on the right foot. When you consider them, in addition to the other four major areas of Benjamin superiority, you will see why, "When *all* things are considered, the Better Lighting choice is Benjamin!"

Send for Free Lighting Booklets shown at right! Benjamin Electric Mfg. Co., Dept. **Q-1,** Des Plaines, Ill.



B-10391

Sold Exclusively Through Electrical Distributors

THE RECORD REPORTS

NEWS FROM CANADA

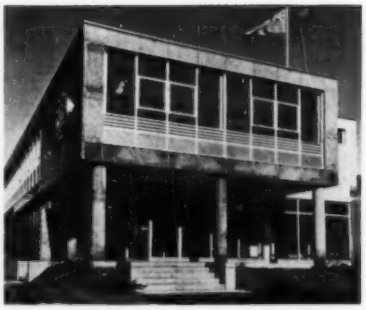
(Continued from page 36)

HEADQUARTERS FOR C.C.A. DEDICATED IN OTTAWA

The Canadian Construction Agency held dedication ceremonies for its new headquarters building, "Construction House," at Ottawa in October.

The new headquarters, designed by the Ottawa architectural firm of Abra & Balharrie, with Burgess & McLean and Hazelgrove and Lithgow as associated architects, was planned so that its parts could serve several uses. The board room can be used as a reception room or as an assembly room; it has provisions for food service and for film projection. The visitors' room may be used as a private office for visiting members. The receptionist's area will double as display space.

The exterior of the building is of polished granite, cut limestone and limestone shoddy. The headquarters are identified by an anodized aluminum reproduction of the association's crest.

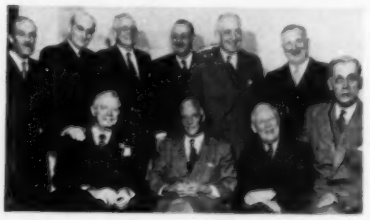


In the library, a mural by Robert Hyndman, depicting activities of the construction industry, will be placed over the wall paneling. A portrait of the association's charter president, J. P. Anglin, hangs at the end of the board room.

The building was declared officially opened by the Right Honorable C. D. Howe, P.C., Minister of Trade and Commerce and of Defense Production, who unveiled the dedicatory plaque. W. G. Malcom, head of the C.C.A., presided.



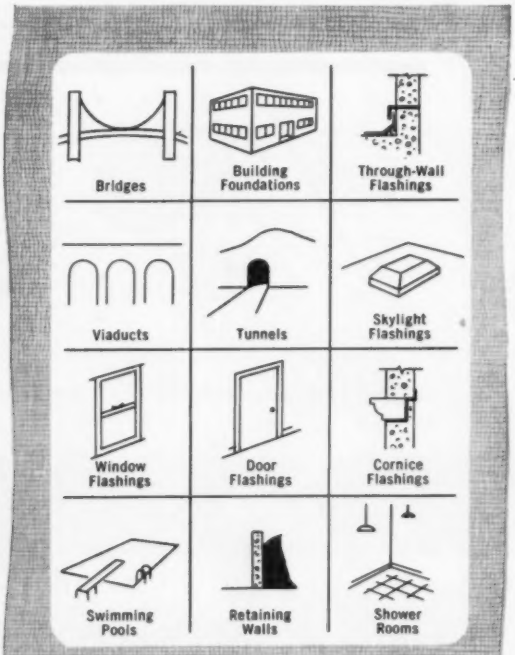
At the opening of Construction House, from left to right: the Rt. Hon. C. D. Howe, Minister of Trade and Commerce and of Defense Production; W. G. Malcom, president of C.C.A., and Her Worship Dr. Charlotte Whitton, C.B.E., Mayor of Ottawa



Past presidents of C.C.A. gathered for a mass portrait: standing — A. C. Ross, Ottawa; John B. Stirling, Montreal; H. C. Nicholls, Toronto; H. P. Frid, Hamilton; J. B. Flood, Saint John; Robert Drummond, Toronto; seated — J. M. Piggott, Hamilton; J. B. Carswell, O.B.E., Toronto; F. G. Rutley, Montreal; and Raymond Brunel, O.B.E., Hull

(Continued on page 44)

what's your waterproofing problem?



Karnak® WATERPROOFING PRODUCTS

PROVIDE POSITIVE PROTECTION AGAINST SEEPAGE OR DAMAGE TO STRUCTURE BY WATER

For 29 years, all over the world the Karnak Membrane Waterproofing System has proven its superiority through actual test. When you have a waterproofing problem call for Karnak. Available through waterproofing contractors or distributors or write us for information.

Made by **Lewis Asphalt Engineering Corp., 30 Church St., New York 7, N. Y.**

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Asphalt Emulsions
Floor Mastic
Asphalt Paint
Aluminum Roof Coating
Wood Block Mastic
Tile Cement
Joint Filler

SEE OUR CATALOG IN SWEET'S FILE

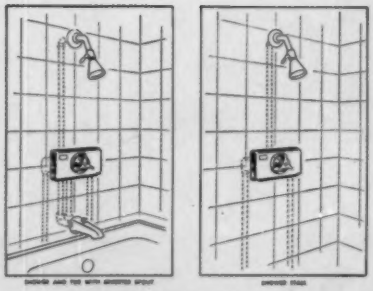
© L A E Corp.

POWERS

NEW Hydroguard®

Best Insurance for SAFE, Comfortable Showers!

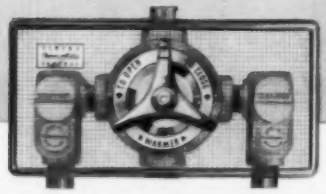




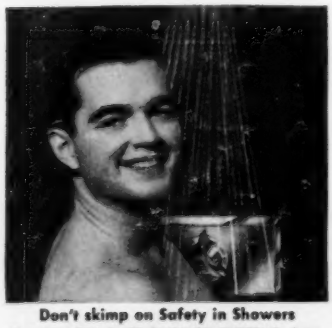
More Convenient for Bathers
HYDROGUARD installations are uncluttered with various valves. Because it has a built-in *shut-off valve* none is required between it and the shower head. HYDROGUARD is often used with shower heads having built-in *volume control.* For shower and tub control it is used with diverter spout as shown above.



HYDROGUARD introduces an advanced style trend in shower control. It provides greater convenience for bathers and neater appearance. It is available for concealed piping (above) and for exposed piping.



New Triple Duty STRAINER-CHECK-STOPS concealed behind the HYDROGUARD cover, simplify piping and tile work. Walls are unmarred by protruding knobs or valve handles. With only one dial to turn instead of the usual 2 to 4 valves, there is no confusion on the part of the bather.



Don't skimp on Safety in Showers
Get POWERS SAFE SHOWER SYSTEMS data. Call your nearest Powers office.

(c53a) ® Reg. U. S. Pat. Off.

Dynamic New Design Simplifies Shower Installation

Powers HYDROGUARD Is Thermostatic. It is the finest shower control money can buy. It always maintains the shower temperature wherever the bather sets it . . . regardless of *temperature* or *pressure changes* in water supply.

Thermostatic SAFETY LIMIT Protects Bather from Scalding. It prevents flow of water to shower above 110°F. Should cold water supply fail HYDROGUARD instantly and completely shuts off hot water.

Conserves Water formerly wasted while adjusting various valves before bathing and jumping in and out of shower because of temperature changes.

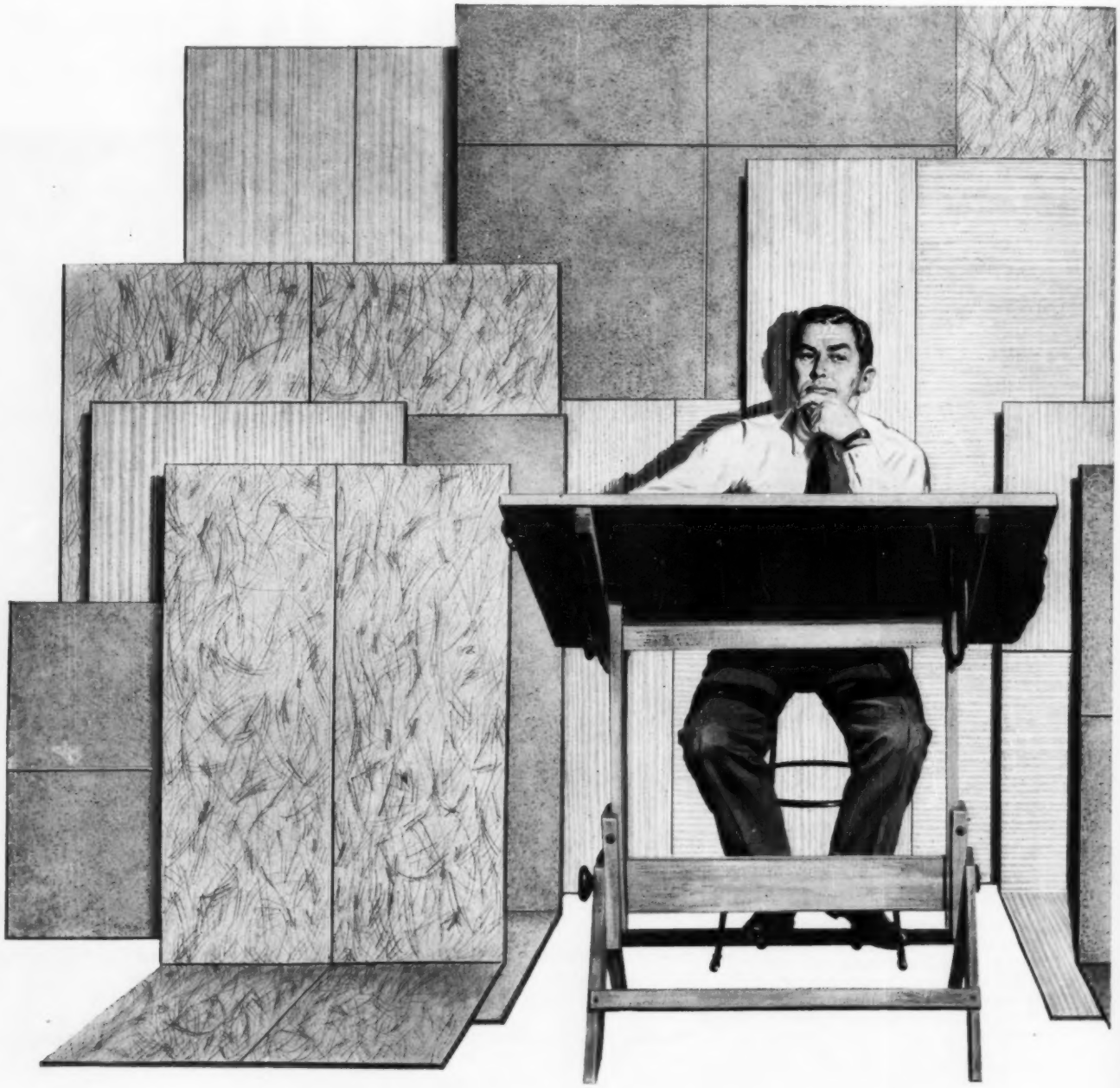
Consult Powers on Shower Planning. Call our nearest office for data on POWERS SAFE SHOWER SYSTEMS. An experienced Powers engineer will gladly help you select the best shower controls for your requirements.

For further information See SWEET'S Catalog

THE POWERS REGULATOR COMPANY

SKOKIE, ILLINOIS | *Offices in chief cities in U.S.A., Canada and Mexico*

65 Years of Leadership in Water Temperature Control

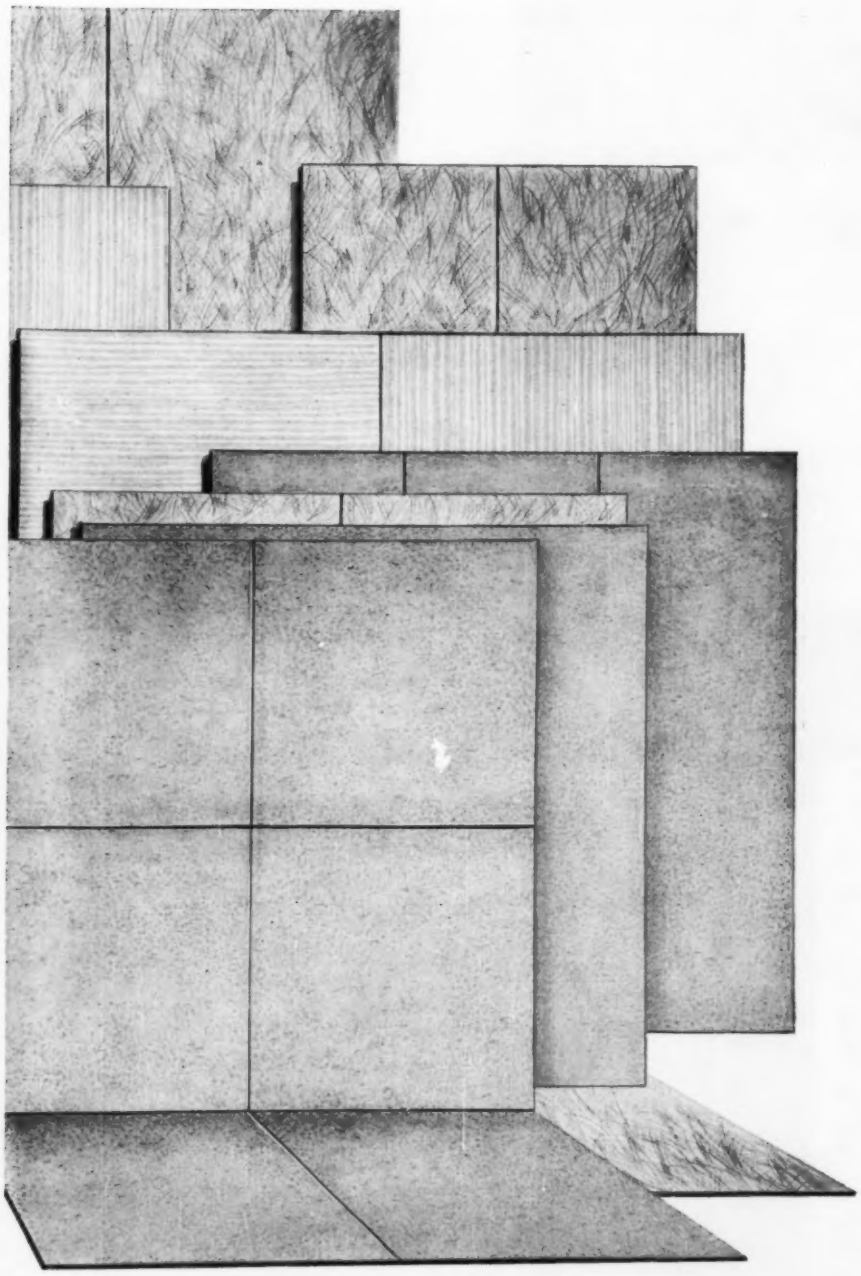


Larger sizes bring new design flexibility, new beauty to acoustical ceilings

NOW! FIBERGLAS

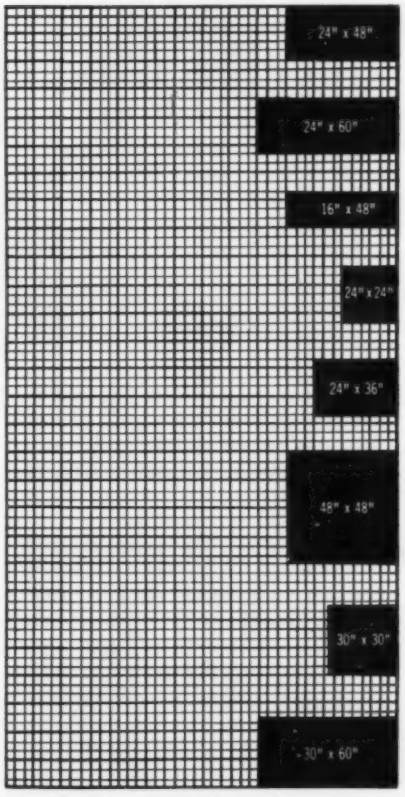
If your practice includes commercial and public buildings, then this is important news for you! Fiberglas* Ceiling Board is now being produced in the larger modular sizes. These larger sizes present you with new opportunities in ceiling treatments . . . free you from the design limitations imposed by small-sized tiles.

Fiberglas Modular Ceiling Board comes in eight sizes ranging up to 48" x 48". These larger sizes permit you to cover more ceiling with fewer boards . . . give you better scale in broad areas. Installation savings promise to be significant.





30" X 30" TEXTURED UNITS give scale and beauty to LaSalle's Department Store in Findlay, Ohio. Boards may be pushed up from exposed tee bar grid for easy access to areas above ceilings.



THE WIDENED RANGE of sizes applies to Fiberglas Modular Ceiling Board in Textured and Stria* finishes. The available sizes are illustrated above. Sonofaced* finish is available only in: 24" x 48", 24" x 60", and 16" x 48" sizes.

MODULAR CEILINGS!

It's all possible because Fiberglas is the only acoustical material light and strong enough to support itself over long spans. Its dimensional stability prevents buckling, warping, expansion. Fire-safe, odor-proof, rot-proof, too.

* * * *

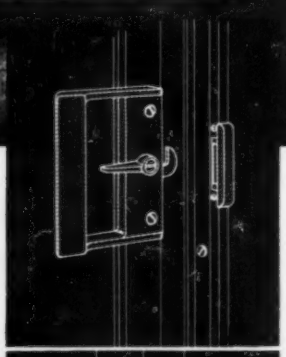
Specify Fiberglas Modular Ceiling Board on your next job. And today, get further information. Consult your nearest Fiberglas Branch Office or write Owens-Corning Fiberglas Corporation, Department 68-A, Toledo 1, Ohio.

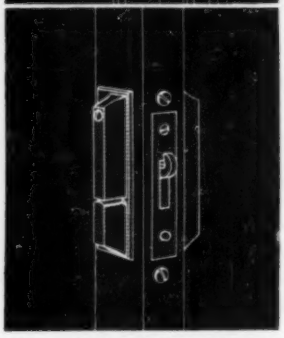
OWENS-CORNING FIBERGLAS

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YOU'LL DECIDE FOR YOURSELF!







WHAT MAKES SUN VALLEY A BETTER ALUMINUM SLIDING GLASS DOOR

Sun Valley helps you maintain your pride of design in your completed project by furnishing the finest structural design and quality in aluminum sliding doors. Constructed of rugged extruded aluminum ...yet slim and trim to provide attractive functional styling. Sun Valley doors use a greater expanse of glass, creating the new "Outward Vision"... making the outdoors an immediate living part of the indoors.

Doors glide silently, effortlessly on sealed ball bearings. Complete weatherstripping with continuous strips of mohair and extruded neoprene assure positive weather control.

Three models, Sun Valley Sr., for deluxe installations, the Jr., for low budget and multiple housing installations, and the new Imperial for all-weather double glazing, give full coverage in price range and sizes. Ease of installation saves time and cuts construction costs.

Sun Valley's nationwide distributor organization assures availability in your area when you designate Sun Valley.

Before you select a sliding door, study Sun Valley... see what makes this a better door and the door to specify.

You'll find Sun Valley sliding doors (A.I.A. File No. 16E) listed under section 16d/Su in the 1956 SWEET'S catalog or write Dept. 205 for complete information and detailed drawings for your files. Complete line of aluminum sliding windows and jalousies also available.

SUN VALLEY INDUSTRIES, INC.
8354 SAN FERNANDO ROAD, SUN VALLEY, CALIF.

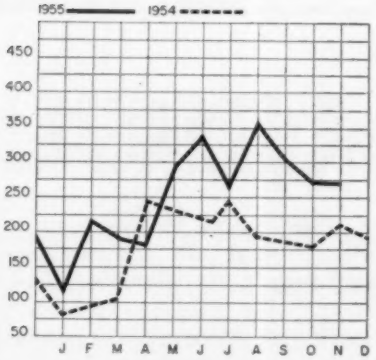
THE RECORD REPORTS
NEWS FROM CANADA

(Continued from page 40)

NEWS NOTES

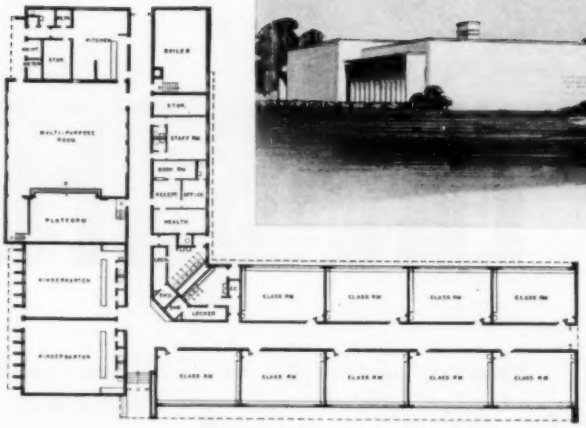
The University of Toronto's School of Architecture has appointed architects Kent Barker and James A. Murray as associate professors. . . . **A 32 per cent gain in housing completions** was registered at the end of September 1955 over a similar period in 1954; mortgage loans increased 45 per cent over the first nine months of 1954. . . . **The shortage of trained planners** was deplored by Dr. E. G. Faludi, president of the Town Planning Institute of Canada, at the Institute's recent annual meeting in Ottawa; "there is an infiltration into planning ranks of persons who have neither the qualifications nor the spirit to perform adequate planning jobs," he said — "only half the positions advertised today can be filled." . . . **The Canadian Construction Association** will hold its 38th annual meeting at Winnipeg, it has been announced; the delegates will convene at the Royal Alexandra Hotel January 15–16. . . . **Architects and engineers** were replaced as top income earners by doctors, a recent report on 1953 income tax returns indicated; the average income for doctors rose to $11,258 from $10,522 in 1952, while the average income of architects and engineers fell to $10,289 from $12,266. . . . **Randolph C. Betts,** honorary secretary of the Province of Quebec Association of Architects and members of the firm Lawson & Betts of Montreal, has been elected a Fellow of the Royal Institute of British Architects.

Contracts Awarded: Comparative Figures
(in $ million)



* Compiled by the editor and staff of *The Building Reporter*, from information collected by Maclean Building Reports

(More news on page 48)





PARKVIEW SCHOOL FOR THE BOARD OF EDUCATION, WOOSTER, OHIO
Architect: W. B. Huff & Associates, Akron, Ohio *Engineer:* Paul B. Fleming, Cleveland, Ohio

THIS SCHOOL will get a NESBITT Series Hot Water WIND·O·LINE System with Storage Cabinets for LESS than the cost of Hot-Air Heating!

When bids were taken on the new Parkview School of Wooster, Ohio, the cost of a Nesbitt Series Hot Water Wind-o-line System with Storage Cabinets was pitted against that of a Hot-Air Heating System.

The low bid for hot-air heating (including about 640 feet of air-distribution tunnel) amounted to $35,113. The bid on the Nesbitt System amounted to $33,500.

Besides the direct cash saving, Parkview School will have the obvious advantages of Syncretizer unit ventilators, Wind-o-line radiation along exposed walls and windows, forced hot-water heat controlled in direct relation to outdoor temperatures, overnight temperature protection at no extra cost—and a clear bonus of beauty and utility in the Nesbitt classroom storage cabinets!

The Series Wind-o-line System makes an important advance through the use of a unit ventilator radiator that requires only one-third as much water as in a conventional hot-water system. This reduces the size of pipes and pumps and permits the Wind-o-line tubing to serve as the supply and return piping for entire classroom wings—thus eliminating mains, costly pipe trenches, coverings, and runouts. The total saving of the Nesbitt System over the construction, equipment and installation costs of a conventional system employing pipe trenches and runouts frequently amounts to 20 per cent—and here in Wooster, the saving was sufficient to rule out even hot-air heating!

Why not check this Nesbitt System for your next school?

Nesbitt
SERIES WIND·O·LINE SYSTEM

Made and Sold by John J. Nesbitt, Inc., Philadelphia 36, Pa.
Sold also by American Blower Corporation



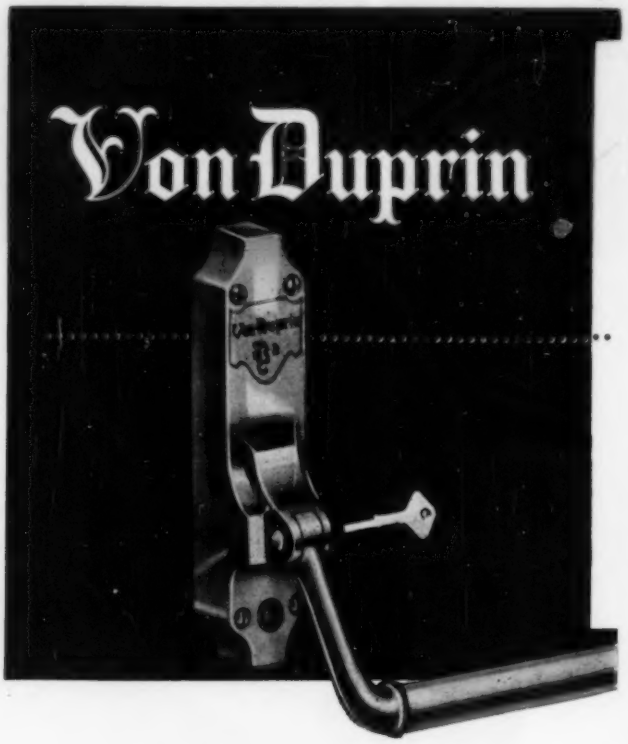


"THE SAFE

Increasing numbers of architects and other safety-minded officials the country over specify Von Duprin exit devices to provide "the safe way out!" And for good reason: Von Duprin's unequalled record of performance! Even under the most adverse conditions, these devices operate efficiently . . . with only normal maintenance.

Since originating fire and panic exit devices in 1908, Von Duprin has consistently paced the field in new designs, incorporating new materials and production methods.

Whether effectively handling the daily flow of traffic . . . or standing ready for that "once-in-a-lifetime" emergency, Von Duprin-equipped doors are your answer to safe, sure exit.



WAY OUT!"

The vertical rod Type B² device, illustrated here, is a part of the complete Von Duprin line of exit devices and auxiliary hardware designed to meet every exit requirement.

For complete information, or for expert advice on specific exit needs, call on your Von Duprin "Exit Specialist"—either a factory representative or a selected builders' hardware distributor.

VONNEGUT HARDWARE CO.
VON DUPRIN DIVISION
Indianapolis 9, Indiana





U. S. NAMES ARCHITECTS ON 11 MORE FOREIGN PROJECTS

The State Department's new program for buildings in foreign countries now includes 11 more architects selected to design a variety of structures for erection abroad. Continuing to emphasize the new approach announced last spring (AR, May 1955, pages 187–192) — to make American architecture overseas more acceptable — the program will move into a second large phase this year. The architectural division of the State Department's Foreign Building Operations will study presentations from the architects named and add to the list during 1956.

The State Department also announced eight architectural firms are invited to participate in a closed competition for design of the projected new U. S. Embassy in London. The eight: Lawrence B. Anderson and Herbert Beckwith, Ernest Kump, Eero Saarinen, José Luis Sert, Edward D. Stone, Hugh Stubbins, William W. Wurster, Minoru Yamaski.

FBO conducts its design and construction work with the guidance of an advisory panel of private architects.

Following are the latest projects in the program, given with location, type of structures, approximate cost and the architect:

Karachi, Pakistan — offices, $1 million; Neutra and Alexander.

Bagdad, Iraq — compound, offices and embassy residence, staff quarters, $1 million; José Luis Sert.

Belgrade, Yugoslavia — staff quarters, garage, warehouse space, $500,000; Carl Koch.

Nagoya, Japan — office building and staff quarters, $250,000; Alexander Smith Cochran.

Oslo, Norway — office building, $750,000; Eero Saarinen.

Port au Prince, Haiti — office building, $225,000; Don Hatch.

Quito, Ecuador — office building, $400,000; Vincent Kling.

Saigon, Viet Nam — office building, $750,000; Curtis & Davis.

Seoul, Korea — staff housing, $500,000; Ernest Kump.

The Hague, Netherlands — office building, $800,000; Gehron & Seltzer.

Accra, Gold Coast, Africa — staff housing, $330,000; Harry Weese.

BUILDING LOANS PROPOSED TO AID "DEPRESSED AREAS"

Congress planned to take another look this month at unemployed in economically depressed areas. Senator Douglas (D-Ill.), prepared over a month ago to hold hearings on this subject soon after Congress convened.

The Douglas bill, as tentatively drafted, would authorize $100 million in Federal loans to cover up to two thirds of the cost of construction of industrial plants and commercial establishments and another $100 million for public works construction in the depressed areas. The second $100 million would be administered roughly in line with the provisions of current programs on highways, schools, etc.

A new Depressed Areas Administration would be established to parcel out

(Continued on page 310)

DEPENDABLE
Interior Communications & Fire Alarm Systems
PRIVATE TELEPHONE SYSTEMS
Couch BULLETIN 121
Simple and multiple phone systems for communication between two or up to 200 points.
APARTMENT HOUSE PHONES
Couch BULLETIN 128
Phone systems for communication between apartments, entrances, superintendent, office, trade entrances, garage, etc.
FIRE ALARM SYSTEMS
Couch BULLETIN 124
Manual and automatic fire alarm systems for coded and non-coded applications.
HOSPITAL SIGNALLING
Couch BULLETIN 125
Visual and audio-visual patient-nurse call systems. Staff in-and-out registers and paging systems.
DATA SHEETS AND BULLETINS AVAILABLE UPON REQUEST.
Built-in Dependability
S. H. Couch Company, Inc.
NORTH QUINCY 71, MASSACHUSETTS

ARCHITECTURAL RECORD

WESTERN SECTION

Western Editor:
ELISABETH KENDALL THOMPSON 2877 Shasta Rd., Berkeley 8, Calif.

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ARE WE READY FOR WHAT'S AHEAD?

THE WEST, said Dr. Jesse E. Hobson, director of Stanford Research Institute, to the recent San Francisco Technical meeting of the American Iron and Steel Institute, "is going to grow almost in spite of itself, but if we lay our plans with care and discretion, if we manipulate our research resources wisely, our growth will be smooth and orderly, our prosperity almost incalculable."

This was no idle remark. Backed by S.R.I.'s considerable research organization, Dr. Hobson quoted figures to prove his point about the expected growth of the area: by 1975 California alone will have 24 million residents; the eleven Western states will have 40 million — 74 per cent more than are here today. The national growth rate, however, will be at just half that of the Western states. And by the year 2000, said Dr. Hobson, some 80 million Americans will tag themselves Westerners.

That picture of the future of the West is not exactly unexpected; it is just that the figures themselves are startling. Are we thinking today in terms of these people who will share the land with us tomorrow? We must, if we are to achieve "smooth and orderly" growth, if we are to give these newcomers as much as possible of that luxury we have so taken for granted here, thinking it to be an everlasting commodity — space: space for living, for working, for playing out-of-doors. We must if we are to provide the cities and the buildings within the cities for more and more people. We must think in terms of more people and in terms of buildings designed for a new set of conditions stemming from more people living on the land.

Does the year 2000 seem a long way off? It is less than 50 years away — none too long in which to accomplish the prodigious things which will accomplish the "smooth and orderly growth" that is the architect's ideal as much as it is the economist's. The year 1975 is even nearer at hand: we haven't enough schools, hospitals, roads, water, power for our own immediate future, let alone for a future that includes 74 per cent more people. To accommodate all these new people in buildings of all kinds, and in doing so to preserve the natural beauty of the land and to use its natural resources wisely is more than a challenge. It is a job that must be done.

This is no job for planning technicians alone; it is a job for those who are trained in visualizing — in seeing a vision of what could be and in capitalizing on that vision through designs that could be realized. This is the architect's natural bent, the thing toward which his training points him. But it is a long range, little-by-little job, a local and a regional job which multiplied many times over throughout the West could give a head start on providing for our new neighbors.

There are many ways of meeting this challenge. Let's start thinking of them now. What are they? What do *you* think?

E. K. T.

Letters to the Editor

City Planning and the Design Profession

Dear Editor: **We most heartily agree with your concern for the neglect of planning by the design profession, which is the group most capable of handling the problems and contributing to the coherent development of our urban and regional areas. But unfortunately this profession has too often drawn into its own protective caves of specialized design. It sees only the cave entrance through which its clients enter and depart with their plans — plans which are individual and isolated from the complex whole of a growing urban development. Granted that the official city planners have the jurisdiction to organize; but they are limited to organizing the ever increasing number of isolated structures and developments.**

As to the premise that "the goal of planning is the achievement of an environment of beauty," we would be opposed to that if this implies application of beauty like a veneer. We are not decorating a Christmas tree; we are dealing with environmental organization

(Continued on page 48-26)



EL PASO'S FIRST

El Paso Natural Gas Company Building, El Paso, Texas

Carroll and Daeuble, Architects

W. E. Simpson Company Structural Engineers

Landauer and Shafer Mechanical Engineers

Robert E. McKee General Contractor, Inc.

New building is tallest between Dallas and Los Angeles along Highway 80. El Paso Natural Gas occupies all but first of structure's 18 floors. Top, opposite page: most of mechanical equipment is located on 18th floor, with core along south side where exposure for glass is severe in El Paso climate. Basement space is freed for file storage. Weather beacon on building top is 276 ft above sidewalk, changes color to indicate weather. Window spandrels are aluminum, filler walls are brick. Building's 1200 windows are of light-diffusing, heat absorbing colored plate glass, can be cleaned from inside because of vertical flue-type operation of sash





Walls of main lobby (left), faced with gray granite, contain boxed full color transparencies showing phases of company's operations. Map behind receptionist's desk is illuminated by black light. Complex lighting for exhibits required special exhaust fan cooling system. Coffee shop on fifth floor (right) seats 240, handles all employes' coffee breaks in five groups

MAJOR OFFICE BUILDING SINCE 1930

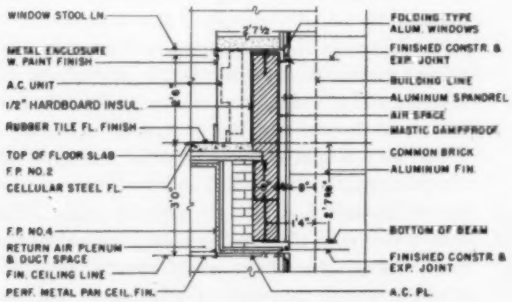


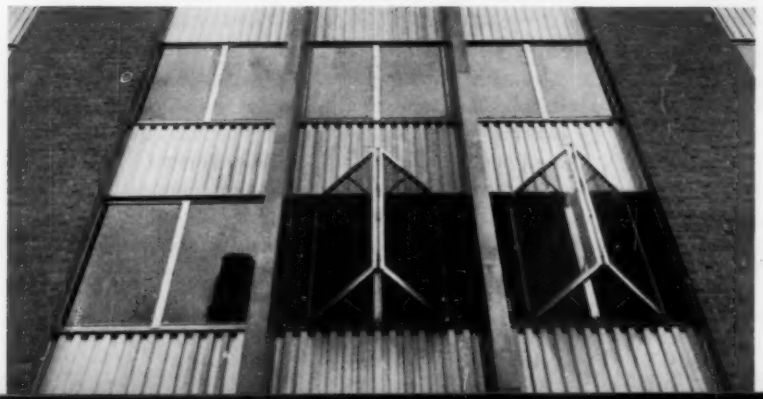
THE EL PASO Natural Gas Company's new office building in the city's downtown district is a milestone for both the company and the city. In the 26 years since the company opened its first office in one room in El Paso, no major office building has been built there. The new building — the first skyscraper built since 1930 — now houses the company's much expanded offices on 16 of its 18 floors. On the ground floor are several rental units; most of the mechanical equipment is located on the 18th floor.

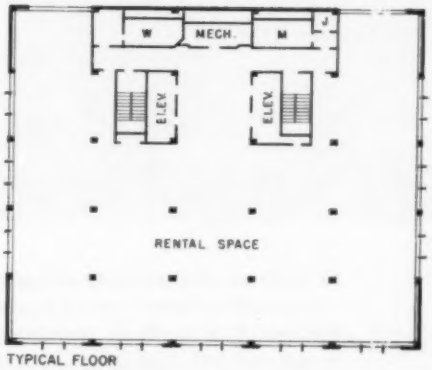
Circulation and communication between departments and flexibility of arrangement were the most important planning factors in designing the building. A vertical organization was worked out to obtain maximum efficiency of operation. To make the space completely flexible certain structural means were used: hollow core metal floor decks carry the electrical distribution system underfloor at intervals of 18 in.; metal acoustic pan ceilings are so designed as to make possible almost any arrangement of lighting and air conditioning needed on a 2-ft module; movable metal partitions subdivide the space in any pattern desired. The 3-ft depth between ceiling and floor above was established as a minimum which would provide for this flexibility. How wise this planned flexibility was became evident when within the first year of occupancy the company completely changed a number of the floor arrangements.

A coffee shop on the fifth floor serves 240 at a time; the building's 1000 occupants take coffee breaks in five groups. On the same floor is an auditorium which seats 99 persons and is used for various company activities such as department meetings and exhibitions. Offices for executives are on the 16th floor (with a clear view over the city to the mountains); those for operating managers are on the 15th floor.

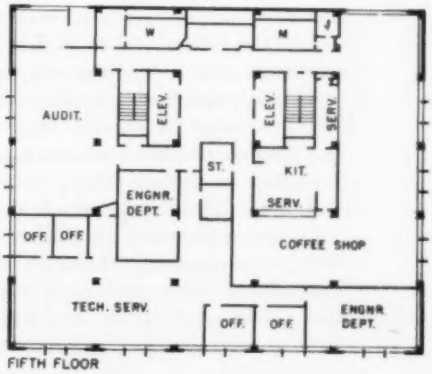
The building is steel-framed with exterior walls and pilasters of face brick. Spandrels are aluminum. Lightweight plaster is used for fireproofing of steel. Cost of the building, including custom-designed space on first floor but exclusive of architects' fee and land, was $4,300,000.



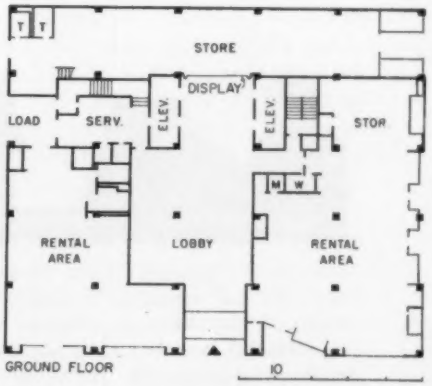




TYPICAL FLOOR



FIFTH FLOOR



GROUND FLOOR

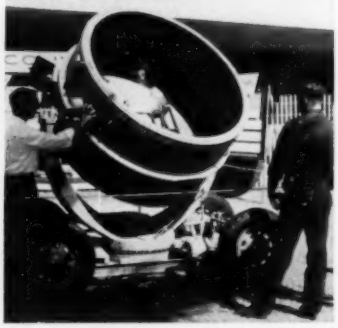
Photos courtesy Stanford Research Inst., except as noted



Model of Dr. George Löf's solar house, now under construction in Denver, attracted attention from visitors of all ages. James M. Hunter is architect for house



Development of man's interest in and application of solar energy was demonstrated in series of dioramas in outdoor exhibition area



Surplus war searchlight was converted by Convair into 5-ft solar furnace

THE ETERNAL SUN: OUR NEWEST PHYSICAL FORCE

First World Symposium on Solar Energy Demonstrates its Developments and Potentials

SCIENTISTS, engineers, businessmen and industrialists — some 800 of them — and a few architects, gathered at Phoenix, Ariz., early in November for the first World Symposium on Applied Energy. That the symposium produced little that was new to the scientists was expected; what they said and demonstrated, however, was new to the general public, and in stirring the public's interest in solar energy and acquainting the man in the street with this new physical force, the symposium was a success. Of greater importance was the fact that it offered business and industry — whose support in further research is vital — a chance to see and to hear of developments to date in this field.

A solar engineering exhibition, held in connection with the symposium, brought together the largest collection of solar equipment ever presented to the public. Displayed on the lawns of the civic center in Phoenix, the exhibits included a model of a solar house, collectors, stills, a converted searchlight used as a solar furnace, dryers, cookers, evaporators, heat storage systems, electrical, chemical and mechanical converters. Arizona's brilliant sunshine was a perfect source of the energy needed to make these various objects operate.

If some of the exhibits seemed unwieldy in size and crude in detail, scientists, engineers and architects agreed that research and wider application of some of these pieces of equipment would lead to better operating, more efficient, cheaper and better looking equipment.

While much of the symposium's program dealt with subjects out of the architect's immediate sphere of interest and of work, there was much in it that concerned him not only as a designer of structures but as a citizen. John Jay Hopkins, president of General Dynamics Corporation, in his talk "A New Heaven and a New Earth" posed a challenge when he said "There is a desperate need to re-think in milleniel terms and time schemes the entire world energy question; not by a single group and nation but by all groups and all nations; not solely in terms of some of the sciences but in terms of all of the sciences — physical and social — and all the humanities."



Lawrence B. Anderson, Boston architect and M.I.T. faculty member, moderated a panel of architects who discussed "The Architectural Problem of Solar Collectors." Members were Winston Close, Minneapolis, James M. Hunter, Boulder, Colo., and Robert H. Dietz, Seattle

The Solar House

Although development of equipment for applying the principles of solar energy utilization has been necessarily a primary function of research up to now, the integration of the equipment with the structure in which it is to be used will become increasingly important. In this the architect and the engineer will be called upon to design structures in which the solar equipment can be



Low pressure solar-operated motor provided power for model irrigation system shown by inventor F. A. Bonaventura (with model) and D. E. Plympton, San Diego

Stuart Weiner



Architects Scholer, Sakellar & Fuller, Tucson and Phoenix, designed entrance to outdoor exhibition area at Phoenix Civic Center

incorporated and used in a way that is satisfying both esthetically and economically. To date very little research has been done by architects on such buildings. The M.I.T. research houses, one of which was designed by Eleanor Raymond, architect, and a house in Boulder, Colo., designed by Dr. George Löf with James M. Hunter as the architect, are among the few in this country which have had architectural collaboration.

One reason for this lag in architectural research has been the fact that the cost of the equipment overshadowed the benefit it could produce. Another was that the equipment has depended on the climate and the amount of sun available, so that not all parts of the country have offered feasible opportunities for solar house design.

Consequently, the model of the new house now being built in Denver by Dr. Löf, for which James Hunter was again the architect, attracted considerable attention at Phoenix. (For sketch, section and description see ARCHITECTURAL RECORD, November 1955, pages 228–9.) Actually the third such house designed by this team (the second was never built; its design was supplanted by the third which improved both architecturally and scientifically on the earlier one), the Denver house has a flat roof and "an even more universally applicable solar collector design and location," according to Dr. Löf. He expects that the collector system in this house will provide about 75 per cent of the annual heating requirements for the 2500 sq ft area. The solar collector has a 600 sq ft area; the storage bin contains about 10 tons of 1.5 in. gravel.

That the design of solar collectors is a problem was brought out in a panel discussion led by Boston architect Lawrence B. Anderson, with James M. Hunter, Robert H. Dietz of Seattle and Winston Close of Minneapolis participating. Not only houses but schools as well can use solar devices for heating, according to Dietz. Hunter described his design for the Denver house project of Dr. Löf.

Cooling by Solar Energy

Reverse cycle heat pumps which cool as well as heat and are operated partially on solar energy, have been known long enough for a fair number of installations to have been made in various parts of the United States. The importance of the cooling aspects of such equipment is, however, on the increase, according to Philip Sporn and E. R. Ambrose of the American Gas and Service Company, New York. The same surface which is used as a heat source for winter can be "quite easily adapted to serve as a heat sink for summer cooling," they said. Their paper on heat pump design and operation described a system consisting of "a collector plate free of glass covers or enclosure of any kind . . . mounted in vertical position . . . on roof or south wall . . . with which rain, wind, solar and sky radiation, and outdoor air can be made to serve as a heat source and heat sink." The same kind of unit can, they said, act as a means of heating domestic hot water and as such "has perhaps equal if not greater promise than the solar comfort air conditioner." Geographic location — i.e., in which there is ample sunshine — is a factor in the performance of the heat trap, they emphasized.

"One of the principal attractive features of space cooling with solar energy is the availability of maximum solar radiation when cooling is most needed," points out Dr. Löf. "This situation reduces or eliminates the

(Continued on page 48-10)



Manufactured at the plant, this precast, pretensioned floor slab with a 30-ft span sustained 200 per cent of design load before cracking. Test deflection was one third allowable



Loaded with twice design load, this precast, pretensioned lightweight concrete tapered girder with a 64 ft span is shown at cracking stage. Test deflection was 67 per cent of allowable deflection

FACTORY-MADE PRETENSIONED SLABS TESTED

Field Day for Architects and Engineers Demonstrates Precast Structural Members

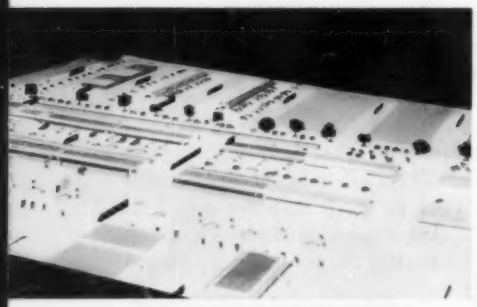
PRETENSIONED lightweight concrete members — "double-tee" roof and floor slabs, a tapered girder and a composite box bridge unit — of various spans, manufactured under shop conditions (as contrasted with field stressing and tensioning), were shown and tested recently at the Napa, Calif., plant of Basalt Rock Company before some 600 architects, engineers and building inspectors. Raymond E. Davis, consulting engineer, conducted the tests.

Precast of lightweight concrete mixed to laboratory specifications in an open-pan type of mixer capable of mixing no-slump concrete in less than normal time, and prestressed with 7-wire high strength strands, all the members recovered completely from deflection at loads up to cracking. At design loads maximum deflections were two-thirds the deflection allowable in building codes and some were as low as one-third. Cracking loads ranged from 170 to 250 per cent of design load. A "double-tee" roof slab 40 ft long was loaded to three times design load and when the load was removed because of excessive deflection (12 in.) and cracking ($\frac{3}{16}$ in.)the slab recovered to $4\frac{1}{2}$ in.

The concrete in all members weighed 105 lb per cu ft and had a strength of 3500 psi at time of release and of 4500 at time of tests. The strands were tensioned to 70 per cent of ultimate strength in excess of 240,000 psi.

S.F. HOPES TO REPLACE PRE-QUAKE PRODUCE MART

FOR THIRTY YEARS San Francisco's produce district — a 26-block area bordering on the financial district and including the Ferry building and a part of the Embarcadero — has been under fire at one time or another as inadequate, antiquated or just plain unsanitary, but not until early last year were any positive steps taken toward a definite program of planning for a better market district.



Proposed new produce center for San Francisco would be located on site of temporary war housing project south of city. Plan includes ample parking, wide streets, eventual construction of 34 buildings, each with direct rail access, all designed to facilitate and expedite handling of produce—something not possible in present old (1906), unsanitary, crowded downtown district

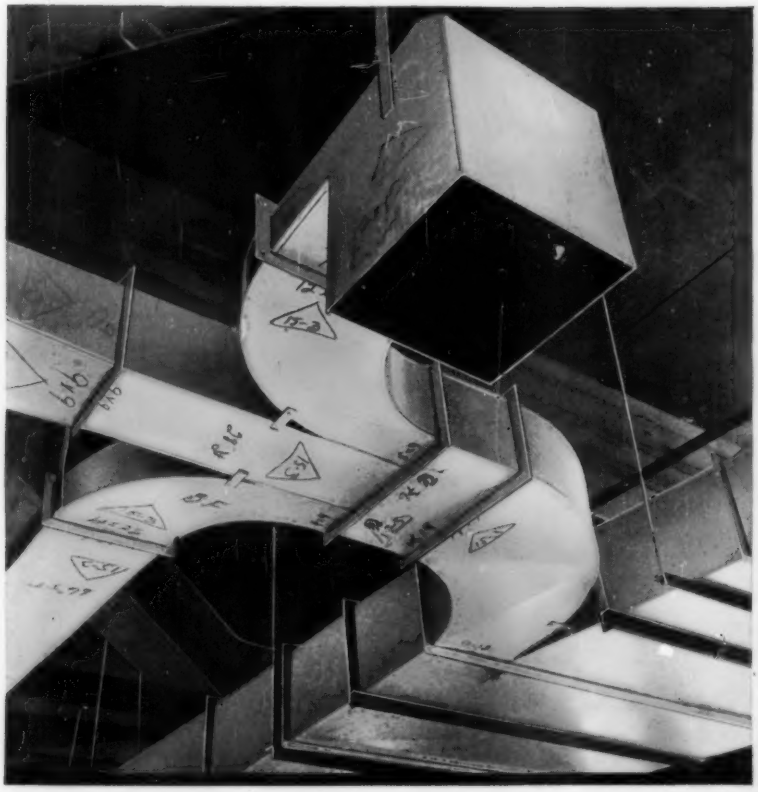
As the first step in this program the city's Board of Supervisors last February designated this district as a redevelopment area and at the same time announced that a 60-acre site at South Basin — south of the city on the Bayshore Freeway — had also been marked for redevelopment. The South Basin site was eligible under the California Redevelopment Act because it had been used for temporary war housing; the present produce district qualified by reason of "blight." South Basin had already been suggested as a possible new location for the produce district, and the simultaneous designation gave direction to the problem which had not previously existed.

Then last June the Agricultural-Marketing Service of the U. S. Department of Agriculture undertook a study of the district at the request of Mayor Elmer E. Robinson and at the conclusion of the study proposed a plan for development of the South Basin site. By October a preliminary plan had been adopted by the city planning commission and a tentative plan had been adopted by the Redevelopment Agency.

Behind the activity in regard to the relocation of the market district has been a continuing program on the part of the San Francisco Chamber of Commerce's Agricultural Committee and its Produce Market Section, and in mid-November of last year the Chamber and the USDA unveiled a model (as a spur to the local produce industry, one segment of which has held out against the relocation move) showing the proposed plan for the South Basin produce center.

The new center would eventually have, according to the proposal, wide streets and new buildings — 34 of them — for fruit and vegetable dealers, meat processors, poultry, egg and dairy products dealers, dry grocers, branch packing house companies, with truck sheds, railroad lines direct to the buildings, and ample parking. Nucleus of the development would be the first unit, the fruit and vegetable dealers' market, which

(Continued on page 48-14)





A unique feature of the Equitable Building's air-conditioning is 1,180 of these air blending units. There is a blender installed in every perimeter office. The units are connected to the central duct system and they act as independent thermostats delivering conditioned air according to an individual's wants.

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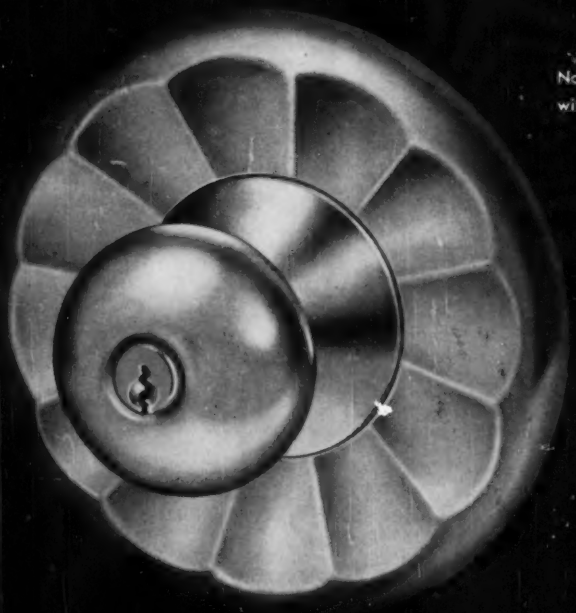
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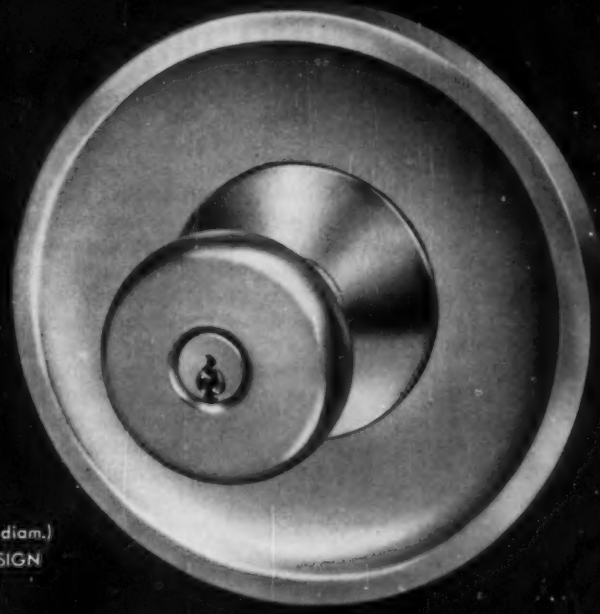
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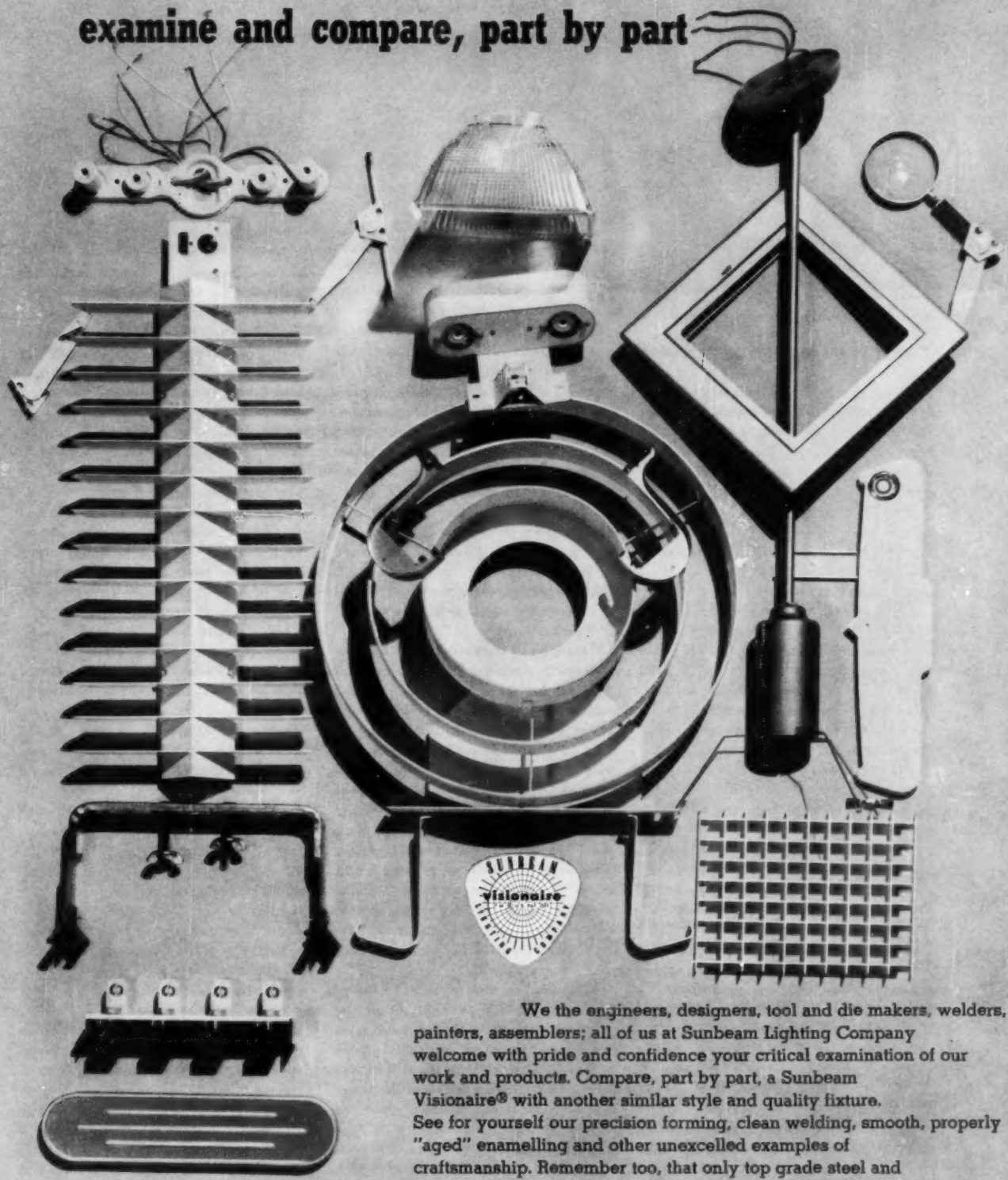
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Courtesy Stanford Research Inst.



Scientists and industrialists included these key men: seated, Farrington Daniels, University of Wisconsin, Felix Trombe, director, Solar Energy Laboratory, Montlouis, France, Hoyt C. Hottel, M.I.T. Standing, Walter Bimson, president, Valley National Bank, Phoenix, Dr. J. E. Hobson, director, Stanford Research Institute, Henry B. Sargent, president, American and Foreign Power Company, and president, Association for Applied Solar Energy, Robert C. Swain, vice president, American Cynamide Company

THE ETERNAL SUN *(Continued from page 48-5)*

need for energy storage such as is required in solar heating of houses." (Size of storage units, as well as collector design, is one of the problems encountered in architectural integration of solar heating systems with structures.)

Two methods for solar cooling of houses have been found to be feasible: absorption refrigeration and absorbtion dehumidification. Both have been under experimental investigation.

Systems operating on solar energy designed for either heating or cooling alone cannot as yet compete with conventional systems, agree Dr. Löf and Raymond Bliss, designer of the experimental installation at Grassland Desert Station, Amada, Ariz. Only when the solar heating devices can be kept operating at practically full capacity can they meet the economic competition offered by butane or electricity in the southwest, Bliss said. Year-round air conditioning using solar equipment "pays for itself" throughout the year, he pointed out, and offers "great promise in the southwest." Dr. Löf, summarizing developments in solar cooling, stated that the "dual system appears to have an even lower cost than commercial all-year fuel-operated heating and cooling systems," but that "there is a need for further studies both experimentally and theoretically" on it.

Solar Furnaces, Steam Plants and Stills

Solar machines are no more expensive to operate, says Dr. Felix Trombe, director of the Solar Energy Laboratory at Montlouis, France, than electric arc furnaces of the same power, and when solar machines are mass produced "it is probable that a substantial economy for industry will be obtained with their use."

Advance reports on some of the experiments at the U.S.S.R.'s Heliolaboratory at Moscow on production of high pressure steam had increased an interest already whetted by the fact that that country's representative at the symposium, V. A. Baum, director of the laboratory, had failed to appear up to the time scheduled for his paper describing the experiments. The paper was read for him by Merritt L. Kastens, advisory committee vice chairman. (Baum's non-appearance was attributed to government red tape in Moscow and in Washington.)

Rumor as to the experiments was not misleading: the paper described a station designed for "a specific region in the southern part of the Soviet Union" which would produce steam with a pressure of 1.5 to 2 atm. "for use in an absorption refrigerator to make ice in summer and to air condition houses; in the winter it would be used to heat hot-houses and dwelling houses." The size of the plant — its "capacity is considerably greater than ever designed in a single unit before" — would be such as to make possible production of enough heat in winter to take care of "a settlement having a population of 17- to 20,000 people," the report said.

The plant consists of a boiler tower approximately 130 ft high, set in the center of a square; the boiler revolves on a vertical axis at a calculated speed related to the sun's rotation. Twenty-three railroad tracks surround the tower in concentric lines. On them move, at the same azimuthal velocity as the boiler, a number of platform cars each equipped with 28 flat mirrors which revolve in such a way that the sun's rays reflected on their surfaces are always focussed on the heating surface of the boiler. Superheated steam at 350 deg C is to be generated at the plant which, when producing steam, would be 55 per cent efficient — a higher rating than that ascribed to other solar steam plants described at the symposium. Baum's paper suggests that the admittedly high cost of such a plant would be economically feasible in areas where no fuel is readily available and predicts that the "self-same mighty forces (which have made sterile deserts) can be used by mankind to return these deserts to life and turn them into flourishing gardens."

Something of the same thought was expressed by Dr. Maria Telkes of New York University's College of Engineering's Research Division, when she said in regard to the potentials of solar stills in converting sea water to fresh, "We may look forward to a time, not too far away, when previously arid regions will be supplied by rivers, flowing backward from the oceans, changed by solar stills into fresh water — the source of all life."

The probable cost of water obtained from solar stills is already lower, she said, than is the cost of water transported over great distances by precarious means, or obtained from fuel-operated stills in tropical areas, and the yield of water from solar stills has already been increased so that a further reduction can be looked for. A program now under way in the United States — the Saline Water Conversion Program directed by David S. Jenkins — is the first in the world to coordinate and stimulate research and development on sea water conversion, she said. To Westerners along the Pacific Coast this program is of enormous significance: the current arguments about Colorado River water for Southern California, about construction of a 500-mile aqueduct over the Tahachapi Mountains, about new dams and new irrigations systems, would not be so bitter if some of the boundless water of the ocean could be economically converted for everyday use.

As much as any of the reports on developments, or any of the words spoken at the symposium, the tone of serious-minded optimism which pervaded the meeting presented a challenge to the world at large and especially to the professions of architecture and engineering and to the business man and industrialist. The "new heaven and the new earth" which the scientist can foresee will not be brought into actuality quickly or without work, but it will come about more quickly if the efforts of the many are focussed, like the rays of the sun on the collector, on the solution of the problems it involves.

Lamin-Art

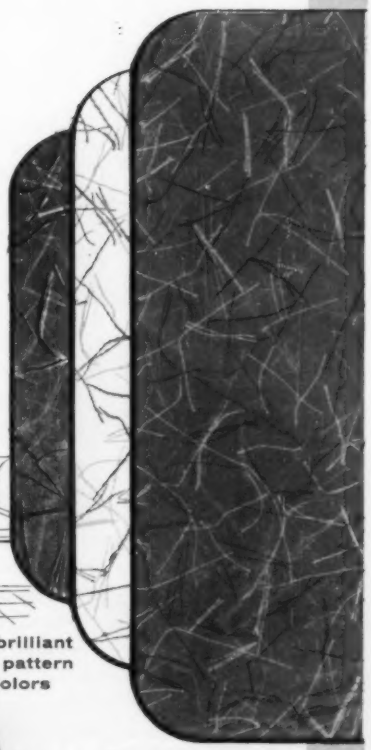
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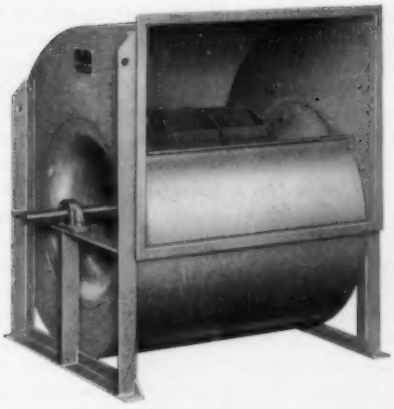


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S. F. PRODUCE MARKET

(Continued from page 48-6)

would occupy 33 acres. Some 80 acres would be set aside for meat, poultry, egg, dairy and dry grocery dealers, and 87 acres would be used for allied industries at a later time.

But the plan doesn't make the market. The Board of Supervisors has yet to adopt the South Basin plan and the site has yet to be acquired. A study of the present produce district's economic potentials will be made by the Redevelopment Agency if the city allocates the money for it. Only then can private funds be sought for the redevelopment and only thus, apparently, can the job be done.

NEW HOTELS FOR FOUR WESTERN CITIES

PORTLAND, Oakland, Denver and Sacramento will be getting new hotel buildings if all goes well with financial and other arrangements now being negotiated, according to spokesmen for the various groups which have announced the projects. Hotel facilities in all four of the cities are in short supply and have been for some years.

Largest project contemplated is that for Denver, a 23-story building which would be a part of Webb & Knapp's $35,000,000 Courthouse Square development (involving a department store, specialty shops, restaurant, sunken plaza, etc.). The Denver project can't go ahead, however, says Arthur G. Rydstrom, Webb & Knapp vice-president, until the hotel is assured of a permit to operate a bar in the hotel, and it looks like special legislative action will be required to get this since the Legislature is not due to be in session this year. Present state law prohibits issuance of a liquor license for a bar within 500 ft of any school, college or seminary. The University of Denver has a downtown campus in the immediate vicinity of Courthouse Square.

The proposed new hotel for Portland will be located in Lloyd Center, the huge new commercial center now under construction across the Willamette from the city's downtown district, if negotiations now under discussion between the center and the Sheraton Corporation are successfully completed. Officials of both groups have confirmed their interest in the project but have given no indication as to probable outcome. If built, the first unit would probably provide 350 hotel-motel rooms; later expansion would bring the number to 500. Convention facilities would be included. The building would cost an estimated $6,000,000.

One of the first offers of private capital to invest in land to be cleared under Sacramento's first redevelopment project, the Capitol Mall area, is that of Adrian L. Wilbur, general partner in MacDonald Brothers, who wants to buy two blocks as the site of a new 400-room hotel-motel, a type of building provided for in the final plans for rebuilding the area. Wilbur estimates his project would cost around $6,000,000.

A $10,000,000 hotel for Oakland, a city which grew considerably during the war years and afterward without adding any new hotel facilities to its already small number of available rooms, looked to be almost a certainty by late fall of last year. Financing arrangements between a San Francisco real estate firm and an unnamed "Eastern financier" were being considered, with an announcement due on them before January 1956. The hotel would have 500 rooms, three convention halls, each seating 2000, and office space for rental. It would be located across the street from the proposed new Kaiser Center, plans for which were announced last summer.

SHORTAGES PLAGUE WESTERN STATES

GLASS, gravel and steel, for various reasons, are in such short supply in some areas that something of a crisis exists in those areas, according to news reports. The rock and gravel shortage in Southern California, caused by a strike in the rock industry, had been in effect for more than two months at press time and had become serious enough to warrant a call for the end of the strike from Gov. Goodwin Knight.

The glass shortage, particularly acute in Northwest and mountain states, has been going on for months. Reasons advanced for it are various and usually of local origin as in Montana, where a severe hailstorm last spring caused widespread damage to buildings and automobiles and resulted in a run on existing supplies. Other suggested reasons include the Eastern hurricanes and the generally increased use of glass.

Job stamping shops will feel the effect of the steel shortage most, says *Iron Age* magazine, and they will feel it particularly in the first half of 1956. Expansion in the industry, however, will increase ingot capacity by approximately 16 million tons during the next four years, the magazine said, adding that part of the cost of expansion must come from increased prices for steel.

NEW BILL TO PRESERVE STATES' WATER RIGHTS

A WAY OUT of the controversy between the state of California and the Federal government which has swirled for months about the proposed San Luis Dam and Reservoir project has been suggested by three California representatives to Congress, Glen Lipscomb, Graig Hosmer and Edgar W. Hiestand. Their solution is being presented to Congress this month in a bill which would authorize ownership by the State of California of the dam and reservoir site, with Federal participation on a contractual basis in the use of the facilities.

Crux of the problem has been the matter of Federal usurpation of states' rights. The bill would clarify this relationship within the historic interpretation of the states' rights doctrine, according to its sponsors.

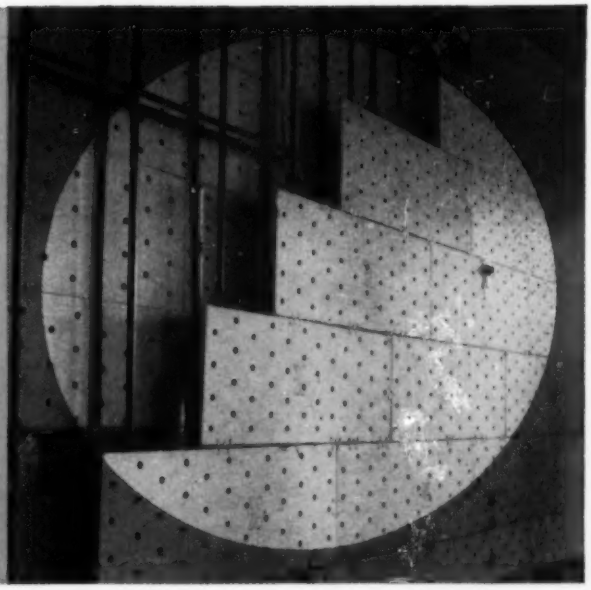
The San Luis dam and reservoir are a part of the California water plan, and are an important link in the proposed Feather River project to bring water to Southern California where population growth has been so rapid that new water sources have become imperative. With the Feather River project water from the northern part of the state would be brought via aqueduct over the Tehachapi mountains (at an elevation over 3000 ft) to the thirsty southern area. The state wants to finance and build the project; its proponents feel, in general, that it should also have ownership to the site of the San Luis dam and reservoir.

A bitter part of the dispute has been in regard to a proposal by the Reclamation Bureau that water be provided only in the immediate area of the dam. The state wants to make fuller use of the water through incorporating the San Luis facilities in its overall plan for development of water resources for the state.

Opinion is not at all in favor of state ownership of the dam site, however. During the last session of the California Legislature several bills were introduced asking for congressional action to permit Federal construction and financing of the San Luis dam. Although none of these passed, supporters of these views have announced that they will try for passage of a bill in Congress favoring Federal ownership of San Luis.

(Continued on page 48-24)

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A section of Kaiser Spee-Dee Clip and Gypsum Lath partition assembly. Photo illustrates use of double stud framing for added sound reduction.



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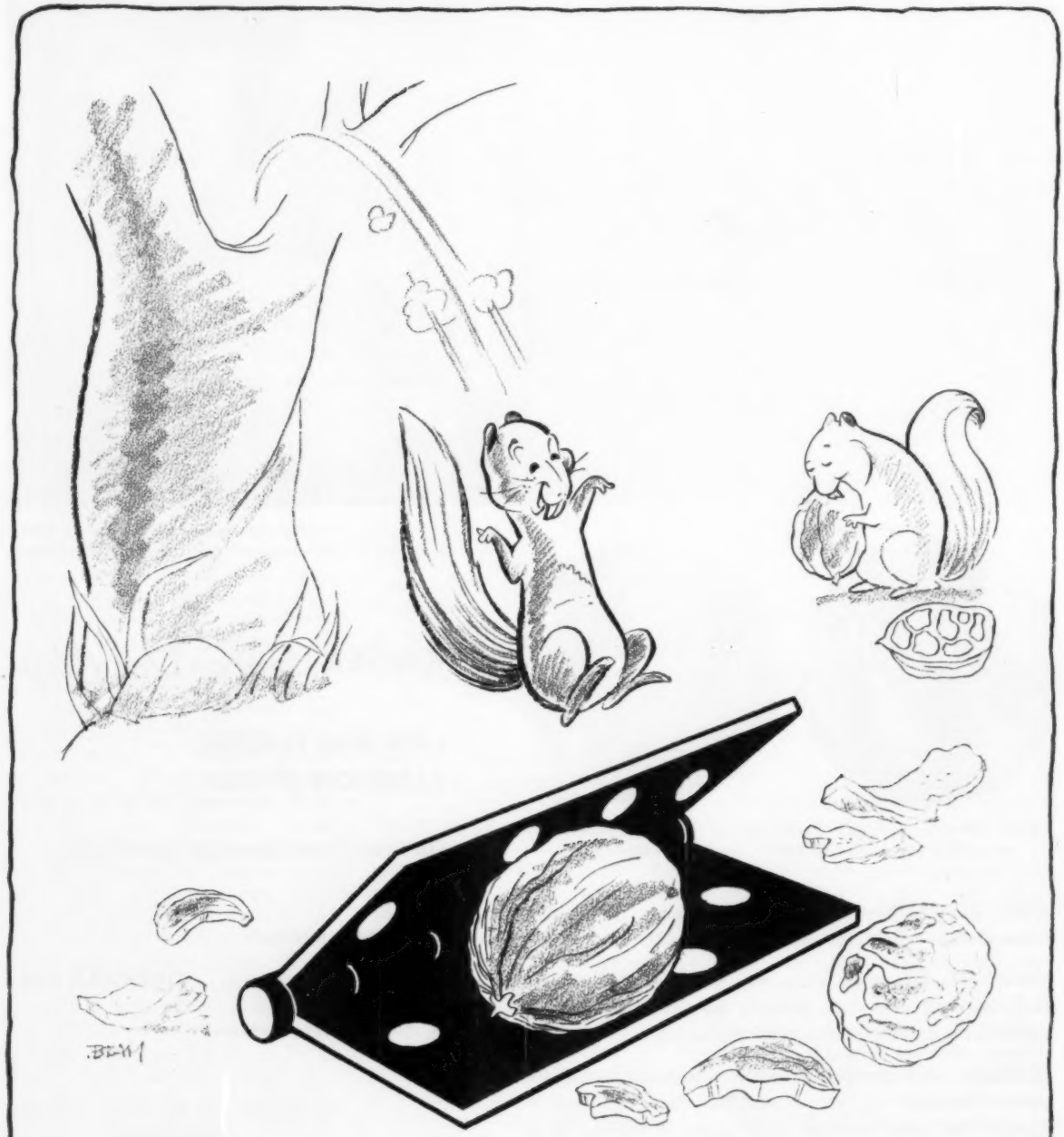
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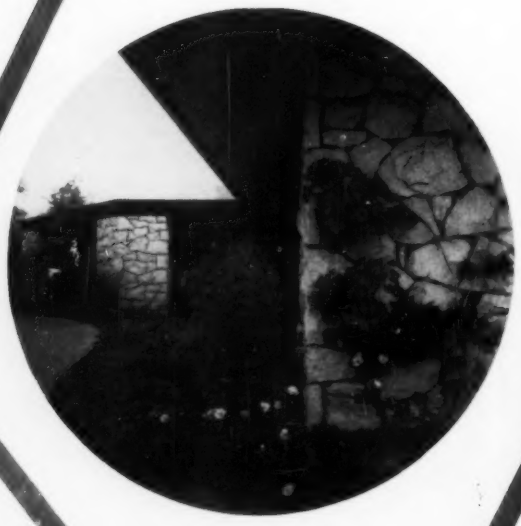
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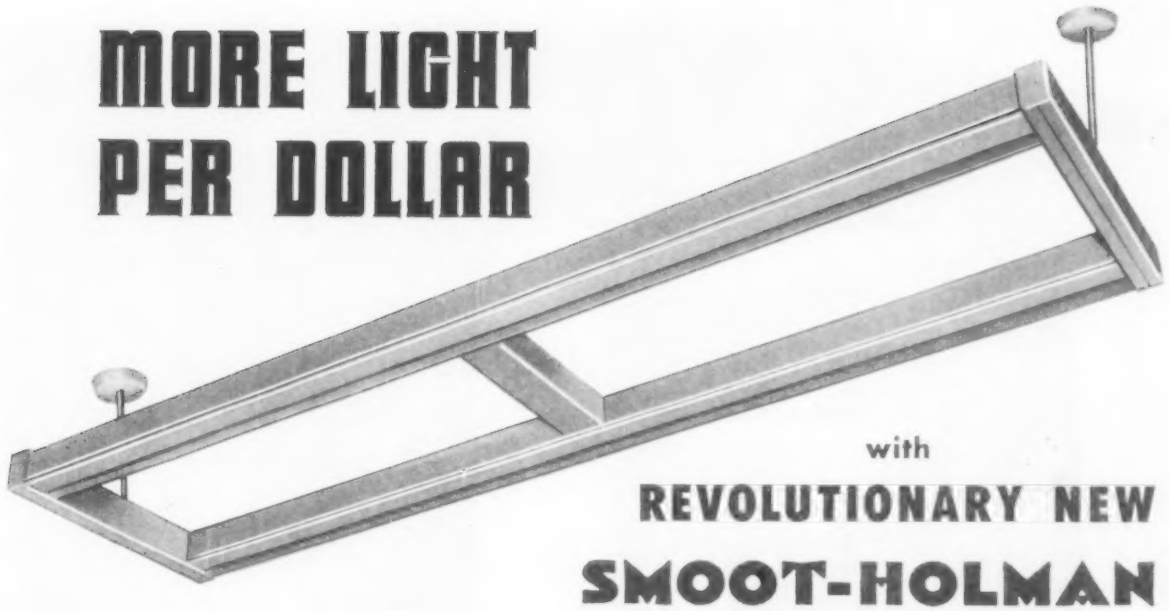


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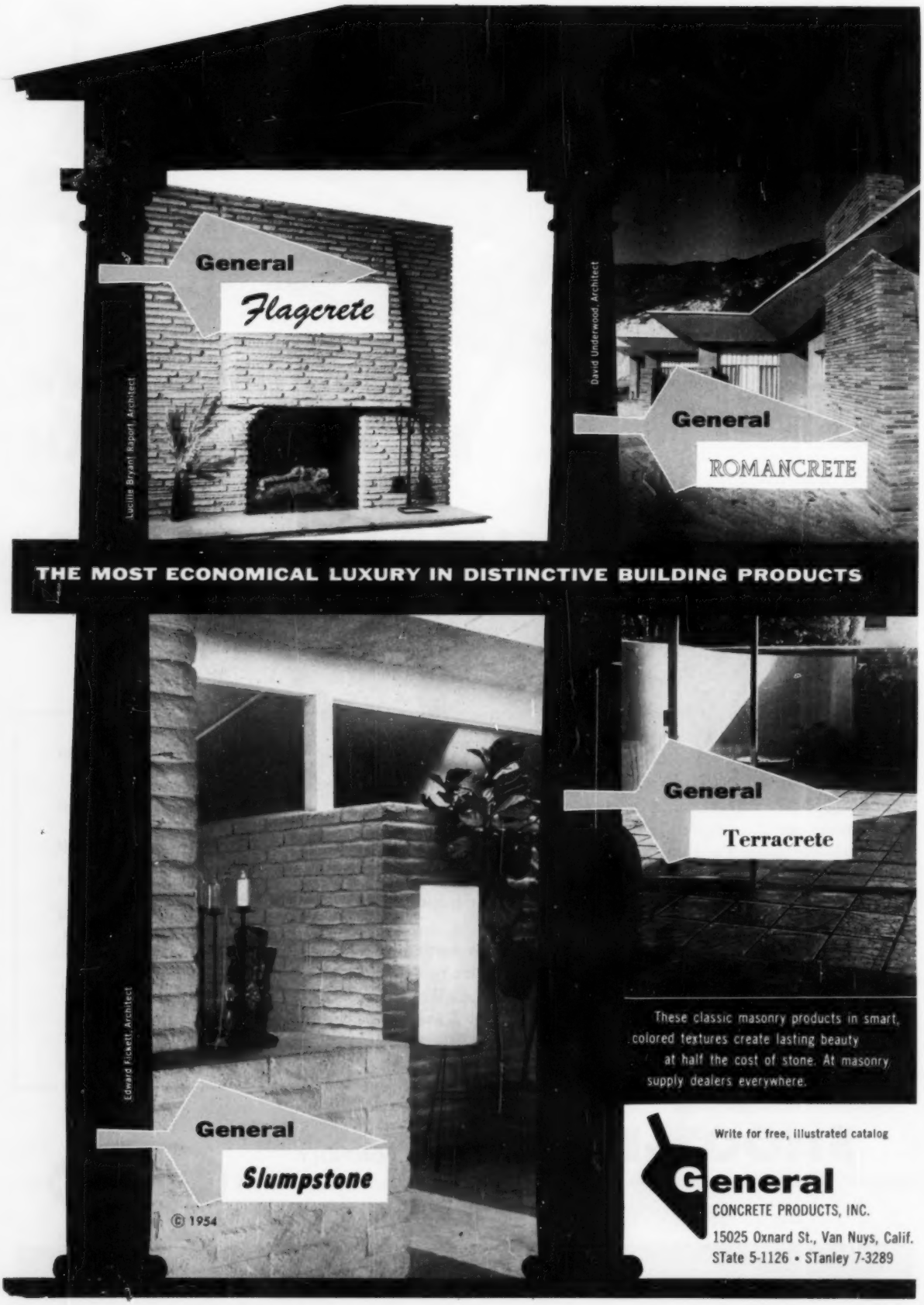
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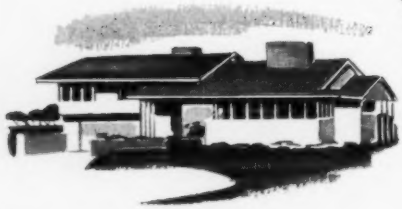


Noah and family...all the animals...and a lot of inspired construction went into the Ark. But one thing was left out: insulation. Poor Noah had to put up with cold and drafts—and the noise must have driven him crazy!

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WASTE SPACE

JUST TO PROVE that Waste Space — that bugaboo of the careful planner and the careful client — may have its uses, that's the name we have chosen for this column. Or perhaps it's just modesty that prompts it. Anyway, don't say we haven't warned you as to what this might turn out to be.

It takes a lot of courage to start a column because so many people write columns nowadays that one more is apt to miss its mark in the mass of stuff to read. Even so, a column has its special reason for being: it can be informal where the news story cannot, and it can tell a story that isn't exactly news but still has bearing on the news. Waste Space is intended as a place for comment, on architecture and the practice thereof and consequently on life and the living thereof, since architecture — the social art — is involved in every phase of life: a kind of courtyard, not needed for the practical realization of the plan but a wonderful place in which to stretch one's arms and — who knows? — perhaps one's mind as well. A place for the random thought, for tangential stimulus, for humor. But perhaps as much as any of these, a place for informal liaison between the different sections of the West, where things of more than local interest can be noted briefly. Like a letter, almost; the kind of letter I would write to each of you individually every month, if I could.

Sometimes a book will provoke comment in Waste Space. This month it is the dedication as much as the book itself that is noted. It is in Professor T. Y. Lin's new book *Design of Prestressed Structures* (John Wiley & Sons, New York, 1955) and it is a reminder to architects as well as to those to whom the dedication is addressed:

"To engineers who, rather than blindly following the codes of practice, seek to apply the laws of nature."

Prof. Lin, who teaches at the University of California and is a consulting structural engineer, packs a lot into those lines: he points to the eternal frontier — the frontier of the mind — as a line to be stepped over, not a barrier to turn away from. He reminds us as Wright has reminded us that it is the principle and never the thing itself which we must study; that it is emulation not imitation for which we must strive.

E.K.T.



AMERVENT installation: Wilson School (Sanger, Calif.) Superintendent: R. T. Argleben; Architect and Engineer: Walter Wagner.

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WATER RIGHTS

(Continued from page 48-14)

Meantime, hearings had begun last month on the proposed new state water resources department which would coordinate most of the independent state water organizations. Exception to this is the Colorado River Board which would remain independent. The two points on which the hearings are intended to draw forth opinion, according to Assemblyman Caspar Weinberger, chairman of the interim committee on government organization, concern handling of water rights by a division of the new department or by an independent Water Rights Appeals Board; and representation of the department by the Attorney General in California court cases.

PLASTIC GREENHOUSE IS SIMPLE, CHEAP

Horticulturists at the University of California at Los Angeles have designed a plastic-covered greenhouse which they say is economical in both original cost and in maintenance, although the covering material must be replaced every six to nine months.

The material which they use to cover the light wood framework of the greenhouse is a polyethylene plastic — the material used to wrap frozen meats — which can be replaced as necessary at a cost of about 4 cents per sq ft, including labor. The initial cost of the greenhouse structure, complete, is approximately 25 cents per sq ft.

Thermostatically controlled gas heaters are used to heat the building. Evaporative cooling systems, similar to those used in home air conditioning, cool it during the day.

Flowers grown experimentally in the plastic-covered greenhouses have been of as good quality as those grown in glass greenhouses, say the experimenters. Among the plants grown so far in such structures are potted chrysanthemums, hydrangeas and poinsettias.

An unusual advantage claimed for the plastic greenhouse is that for tax purposes it is considered a temporary structure and therefore is not taxable; also, the depreciation on its framework can be taken over a three to five year period, and on its covering, every year. Glass greenhouse depreciation is on a 15 to 30 year period.

PROFESSIONAL NEWS

New Offices, Firm Changes

The firm of Kistner, Wright & Wright, Los Angeles architects and engineers, announced recently that two of their staff members, architect Arthur J. Rendon and engineer Lewis K. Osborn, have been named associates in the firm.

William B. Fox has become a partner in the firm of Weibe, Frick & Kruse, San Francisco architectural firm with offices at 414 Mason Street.

Victor D. Langhart, architect, and F. Marshall Boker, associate, have opened offices at 2031 Broadway in Boulder, Colo.

Harlan E. Rathbun, architect of Denver, Colo., has discontinued his practice in that city to become chief architect for Wadsworth Homes in the Fairfax industrial district of Kansas City, Mo.

Richard Kendal Smart, architect, has opened offices at 2125 South East Street, Redding, Calif.

(Continued on page 48-28)

Plant and offices of O. E. McIntyre, Inc., Westbury, Long Island. Architects: Marcel Breuer and William W. Loudsberg, New York City. Contractor: Brown & Matthews, Inc., New York City. Windows: Lupton Steel Architectural Projected.



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for people — living, walking, traveling, working, enjoying themselves. The public should realize that planning is not city beautification nor is it a master plan sealed and dated for future generations to carry out rigorously. Community planning is a process, a consideration of all the elements that go to make up the area. It is the organization of space and area with a constant eye on flexibility (which does not mean just zone changes). Today we use cars, tomorrow we may use monorails, or automatic pilot mobile units. When we plan our 1955 cities for cars only, we immediately determine that they will be obsolete when today's cars are obsolete.

Why are not architects, planners, landscape architects and designers more actively contributing to the current organization of the city? Maybe because we are just selfishly interested in our own little caves; or maybe because we feel a sense of futility in city "beautification"; or maybe too many just don't care.

Edmund Ames
Site Planner — Landscape Architect
Mariel J. Ames
Associate Designer
Dallas, Texas

[The editorial referred to (Western Section, October 1955) makes the same point as the Ames' letter. No veneer of beauty makes real beauty which must come from truth and honesty — a principle as basic in the planning of cities as it is in the design of buildings or in the development of character in human beings. — Ed.]

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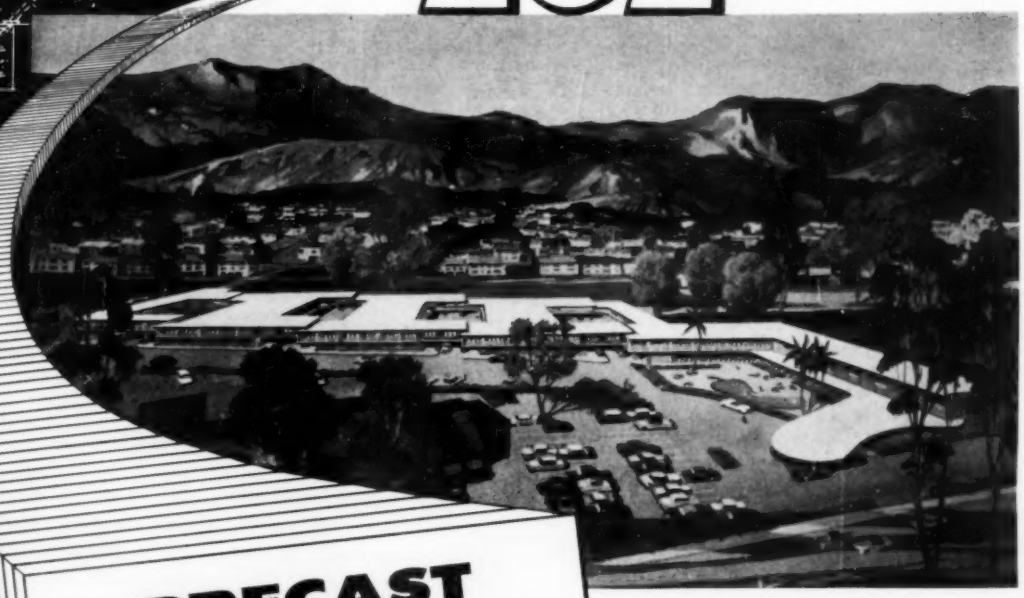
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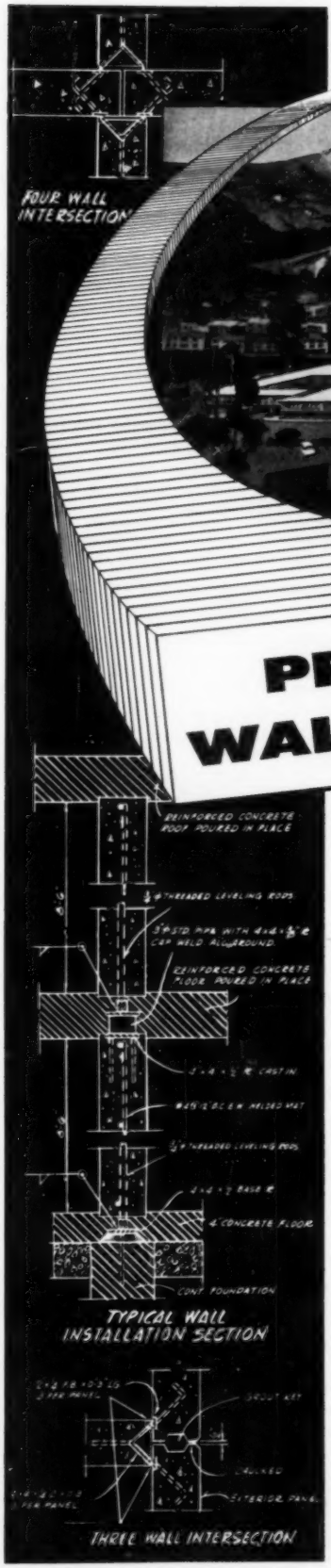
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PRECAST WALL PANELS

Design by: R. M. SHERMAN
Consulting Engineers: L. H. and B. L. NISHKIAN
Contractors: PACIFIC DEVELOPMENT CO.



...for this modern hotel!

60,000 square feet of panels of lightweight, expanded shale aggregate—in sizes ranging from 14' x 8'7" to 30'1" x 8'7"—form the walls of the handsome two-story Villa Hotel, San Mateo, California. These precast panels were factory-made at BASALT ROCK COMPANY's Napa Plant under rigidly controlled conditions... delivered to the job in planned sequence.

SPEED and ECONOMY are not the only features of BASALT Precast Wall Construction! Its clean, smooth, attractive wall surfaces have eliminated the need of plaster. The Precast Concrete Walls have excellent insulating properties and curtail room-to-room sound transmission. Its strength and dimensional accuracy meet your specifications.

● **Get complete information** on the versatility of BASALT Precast, Prefabricated Concrete Construction... before you specify materials for your next job. Telephone, wire or write

STRUCTURAL CONCRETE PRODUCTS DIVISION
BASALT ROCK CO., INC.
NAPA, CALIFORNIA • Telephone BAldwin 6-7411

Basalt
CONCRETE PRODUCTS

 (Continued from page 48-14)

Western Architects to Design Exhibition Houses

Several Western architects are among the first group selected to design houses for a "research village" to be built by the Home-style Center Foundation in Grand Rapids, Mich. They are Gene Zema and Albert O. Bumgardner, Seattle; A. Quincy Jones and Federick E. Emmons, Los Angeles; Kazumi Adachi, Los Angeles. Two former Californians, John E. Dinwiddie, formerly of San Francisco and now dean of architecture at Tulane University, New Orleans, and Harwell Harris of San Antonio, Texas, are also among the twenty architects selected to captain four-man teams to design houses for the project. An interior designer, a landscape architect and a builder, from the same region as the architect, will complete each design team. Pietro Belluschi, former Portland architect now of Cambridge, Mass., is a member of the Design Committee for the Center.

Urban, suburban and farm homes, in a price range from $8000 to over $50,000, will be included in the completed "village." The group is intended to present a complete panorama of the country's needs in residential architecture. Fifty houses are to be built within four years; when this group is completed ten houses each year will be replaced so that the group represents a segment of current thinking at all times. The Center is scheduled to open in January, 1957.

Home and Garden Shows Combined

The California Spring Garden Show will this year be combined with the annual East Bay home show under the new name of California International Home and Garden Show, according to an announcement by John I. Hennessy, executive vice president of the Associated Home Builders of the Greater East Bay.

Landscape architect Howard Gilkey, who has for 14 years designed and managed the garden show, will design the combined show, which will be held in Oakland Exposition and surrounding grounds April 21–29, 1956.

CALENDAR OF WESTERN EVENTS

- January 11: Conference on Industrial Materials Handling, "Storage and Warehousing." University of California Extension Center, San Francisco.
- January 19–20: Woodwork Institute of California meeting, Los Angeles.
- January 27–28: Conference on Construction Operations, University of California at Los Angeles.
- February 3: Eighth annual Industrial Engineering Institute, to be held simultaneously on Berkeley and Los Angeles campuses, University of California.
- April 11–14: American Industrial Development Council annual convention, sponsored by San Francisco Bay Area Council and Stanford Research Institute, San Francisco.
- April 21–29: California International Home and Garden Show, Oakland Exposition Building and grounds.
- May 11–14: "Architecture for the Good Life" — 99th annual convention, American Institute of Architects, Biltmore Hotel, Los Angeles.



HARDWARE MUTUAL INSURANCE CO.
Los Angeles, California
Architect: Stiles and Robert Clements, Architects-Engineers
Contractor: Architectural & Mechanical Products Co.

SPANDREL AREAS are given life-time protection and attractive symmetrical treatment by use of *Porcelain Enamel* laminated panels ...*adding strength where it's needed and beauty where it shows.*

Write for detailed information and color chart

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WESTERN SECTION
INDEX TO ADVERTISING

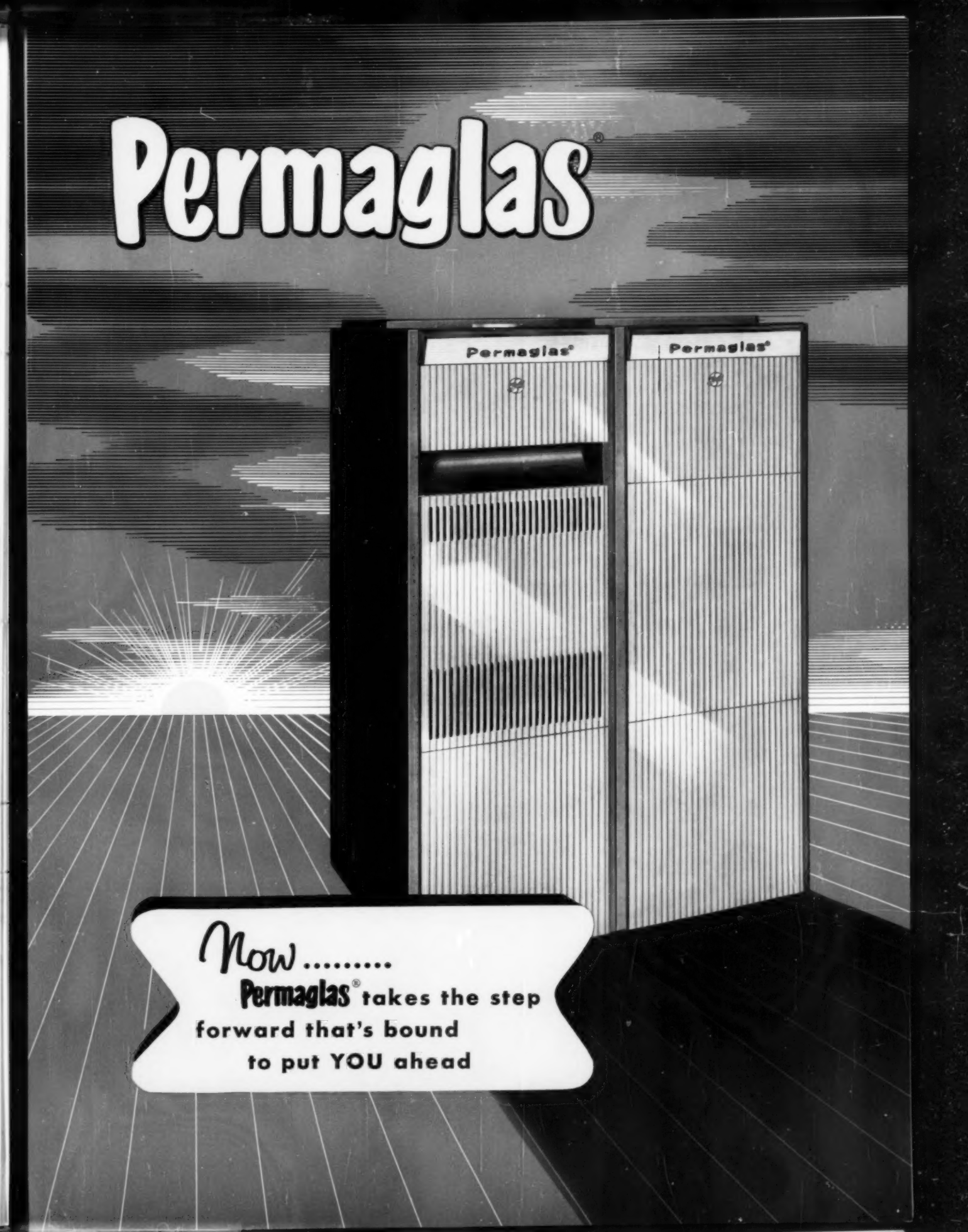
MANUFACTURERS' PRE-FILED CATALOGS
Catalogs of the firms listed below are available in the 1955 Sweet's Catalog Files as follows:

a — Architectural File (green)
ic — Industrial Construction File (blue)
lc — Light Construction File (yellow)

a	American Air Filter Co., Inc.	48–23
	Basalt Rock Co., Inc.	48–7
a	California Metal Enameling Co.	48–26
	Columbia-Geneva Steel Div.	48–27
a	Dant & Russell, Inc.	48–22
	Fabricon Products	48–11
a	Flynn, Michael Mfg. Co.	48–25
	General Concrete Products Inc.	48–20
	Hager, C. & Sons Hinge Mfg. Co.	48–16
	Kaiser Gypsum Co., Inc.	48–15
a	Lockwood Hardware Manufacturing Co.	48–8
a	Nelson, Herman Products	48–23
	Pacific Coast Co.	48–21
	Pacific Telephone & Telegraph Co.	48–26
	Palos Verdes Stone	48–18
	Porcelain Enamel Publicity Bureau	48–28
	Smoot-Holman Company	48–19
	Soule Steel Company	48–12
a-ic	Sunbeam Lighting Company	48–9
	Thompson, E. A. Co., Inc.	48–24
ic	United States Steel Corp.	48–27
	Utility Fan Corp.	48–13
	Weber Showcase & Fixture Co., Inc.	48–17

. . . . . .

Western advertising offices: LOS ANGELES, Bob Wettstein, 672 S. Lafayette Park Pl.; PORTLAND, Bob Wettstein, 921 S. W. Washington St.; SAN FRANCISCO, Bob Wettstein, Howard Bldg., 209 Post St.

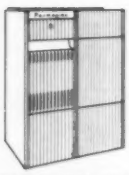

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forward that's bound
to put YOU ahead

Permaglas® announces

the most modern...
the most value-packed...
the most profitable...

HEATING and COOLING

line the industry has ever seen!



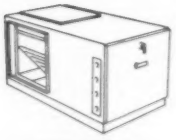
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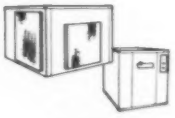
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Match Hi-Boys, but will work with any warm air system. 2, 3 or 5 tons. Water or air cooled. Add-on or free-standing.



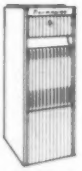
HORIZONTAL COOLING UNITS

Fit in small spaces, easily added to any ductwork system. Water cooled, hermetic, 2 and 3-ton sizes.



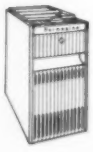
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HI-BOYS

Slim and trim. Gas-fired, from 70,000 to 200,000 BTU input. Oil-fired, from 0.75 to 1.75 gph.



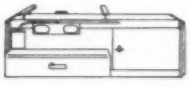
LO-BOYS

Low and compact. Gas-fired, 85,000 to 200,000 BTU input. Oil-fired, 0.75 to 1.75 gph.



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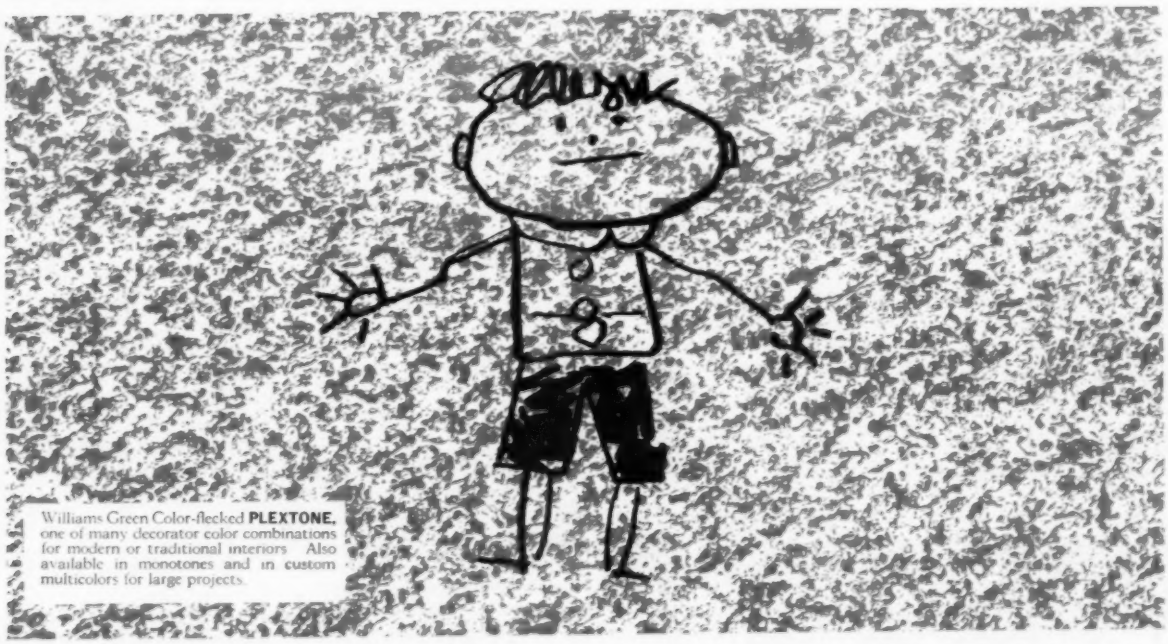
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IN SCHOOLS, THEY CALL IT

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and no wonder! This new multicolored paint is stain-mar-grease-scratch-chip resistant!



Williams Green Color-flecked **PLEXTONE**, one of many decorator color combinations for modern or traditional interiors. Also available in monotones and in custom multicolors for large projects.

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CONSTRUCTION COST INDEXES

Labor and Materials — **U. S. average 1926–1929 = 100**

Presented by Clyde Shute, manager, Statistical and Research Division, F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.

NEW YORK

Period	Residential		Apts., Hotels Office Bldgs.	Commercial and Factory Bldgs.	
	Brick	Frame	Brick and Concr.	Brick and Concr.	Brick and Steel
1930	127.0	126.7	124.1	128.0	123.6
1935	93.8	91.3	104.7	108.5	105.5
1939	123.5	122.4	130.7	133.4	130.1
1946	181.8	182.4	177.2	179.0	174.8
1947	219.3	222.0	207.6	207.5	203.8
1948	250.1	251.6	239.4	242.2	235.6
1949	243.7	240.8	242.8	246.4	240.0
1950	256.2	254.5	249.5	251.5	248.0
1951	273.2	271.3	263.7	265.2	262.2
1952	278.2	274.8	271.9	274.9	271.8
1953	281.3	277.2	281.0	286.0	282.0
1954	285.0	278.2	293.0	300.6	295.4
Aug. 1955	298.0	290.6	305.6	314.0	308.7
Sept. 1955	298.0	290.6	305.6	314.0	308.7
Oct. 1955	298.4	291.0	306.1	314.4	309.1
	% increase over 1939				
Oct. 1955	141.6	137.7	134.2	135.7	137.6

ATLANTA

Period	Residential		Apts., Hotels Office Bldgs.	Commercial and Factory Bldgs.	
	Brick	Frame	Brick and Concr.	Brick and Concr.	Brick and Steel
1930	82.1	80.9	84.5	86.1	83.6
1935	72.3	67.9	84.0	87.1	85.1
1939	86.3	83.1	95.1	97.4	94.7
1946	148.1	149.2	136.8	136.4	135.1
1947	180.4	184.0	158.1	157.1	158.0
1948	199.2	202.5	178.8	178.8	178.8
1949	189.3	189.9	180.6	180.8	177.5
1950	194.3	196.2	185.4	183.7	185.0
1951	212.8	214.6	204.2	202.8	205.0
1952	218.8	221.0	212.8	210.1	214.3
1953	223.3	224.6	221.3	221.8	223.0
1954	219.6	219.1	223.5	225.2	225.4
Aug. 1955	226.6	226.2	230.9	234.1	234.2
Sept. 1955	226.6	226.2	230.9	234.1	234.2
Oct. 1955	229.6	229.0	233.3	235.7	236.1
	% increase over 1939				
Oct. 1955	166.0	175.6	145.3	142.0	149.3

ST. LOUIS

1930	108.9	108.3	112.4	115.3	111.3
1935	95.1	90.1	104.1	108.3	105.4
1939	110.2	107.0	118.7	119.8	119.0
1946	167.1	167.4	159.1	161.1	158.1
1947	202.4	203.8	183.9	184.2	184.0
1948	227.9	231.2	207.7	210.0	208.1
1949	221.4	220.7	212.8	215.7	213.6
1950	232.8	230.7	221.9	225.3	222.8
1951	252.0	248.3	238.5	240.9	239.0
1952	259.1	253.2	249.7	255.0	249.6
1953	263.4	256.4	259.0	267.6	259.2
1954	266.6	260.2	263.7	273.3	266.2
Aug. 1955	276.6	269.4	275.7	284.0	280.8
Sept. 1955	276.6	269.4	275.7	284.0	280.8
Oct. 1955	276.8	269.6	276.0	284.2	281.0
	% increase over 1939				
Oct. 1955	151.2	152.0	132.5	137.2	136.1

SAN FRANCISCO

1930	90.8	86.8	100.4	104.9	100.4
1935	89.5	84.5	96.4	103.7	99.7
1939	105.6	99.3	117.4	121.9	116.5
1946	159.7	157.5	157.9	159.3	160.0
1947	193.1	191.6	183.7	186.8	186.9
1948	218.9	216.6	208.3	214.7	211.1
1949	213.0	207.1	214.0	219.8	216.1
1950	227.0	223.1	222.4	224.5	222.6
1951	245.2	240.4	239.6	243.1	243.1
1952	250.2	245.0	245.6	248.7	249.6
1953	255.2	257.2	256.6	261.6	259.7
1954	257.4	249.2	264.1	272.5	267.2
Aug. 1955	277.1	262.7	279.0	288.1	284.7
Sept. 1955	271.5	263.1	279.5	288.5	285.1
Oct. 1955	271.9	263.5	280.0	288.9	285.5
	% increase over 1939				
Oct. 1955	157.5	165.4	138.5	137.0	145.1

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926–29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
index for city B = 95

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926–29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

These index numbers will appear regularly on this page.

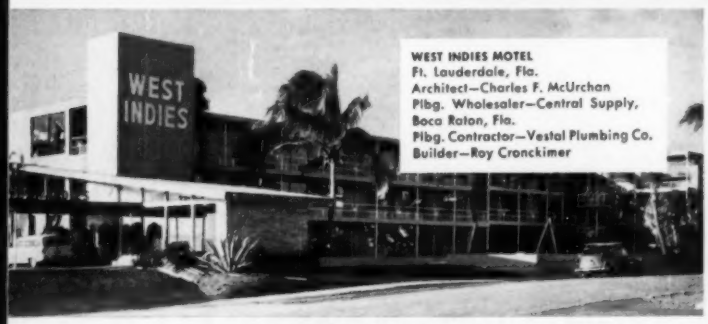
More Motels Join the Move to

RICHMOND

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HOLIDAY INN MOTEL
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Architect—Hudgins Thompson Ball & Associates
Plbg. Contractor—Gore Plumbing Co.
Plbg. Wholesaler—Bolls Supply Co.
Builder—Tom Poore



WEST INDIES MOTEL
Ft. Lauderdale, Fla.
Architect—Charles F. McUrchan
Plbg. Wholesaler—Central Supply, Boca Raton, Fla.
Plbg. Contractor—Vestal Plumbing Co.
Builder—Roy Cronckimer



SAXON MANOR, Miami Beach, Fla.
Architect—J. Alden Fusco
Builder—N. Atlantic Construction Co.



ATLANTA MOTEL, Atlanta, Ga.
Architect & Builder—W. V. Merriman
Plbg. Wholesaler—Mutual Supply Co.
Contractor—E. A. Harper

The public is rough on plumbing. That's why you see Richmond fixtures in so many motels and other commercial, institutional and industrial buildings. In any installation they are *more than "equal"* to the roughest treatment.

Design, selection of materials and production quality control assure maximum durability, minimum maintenance. Richmond vitreous china is fired in modern kilns at temperatures up to 2300°F. to achieve hardness comparable to the natural sapphire. Richmond cast ironware's glass-hard ceramic glaze is furnace fused for a permanent, impermeable bond. All types are available in a wide range of sizes and styles in Richmond's famous *"Whiter-White"* and seven pastels. Specify Richmond... for plumbing fixtures that are *more than "equal."*

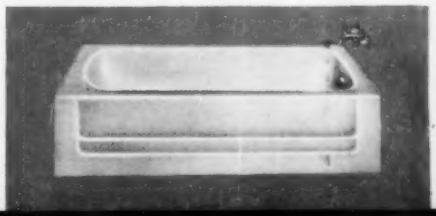
Richmond fixtures comply with U. S. Government specifications WWP-541B, Federal specifications for land use of Army, Navy, Air Force installations and exceed the requirements of Commercial Standards CS 20-49 and CS 77-51.

Sold through selected wholesalers.





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RADIATOR COMPANY
16 Pearl Street, Metuchen, N. J.
AFFILIATE OF REYNOLDS METALS COMPANY





More Classroom Comfort per Dollar

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Public School ... Mora, Minnesota
Garfield School ... Moline, Illinois
Orangevale School ... Orangevale, California
Highland Park High School ... Topeka, Kansas
Basic Elementary School Unit No. 2 ... Reno, Nevada
Slinger Commercial School ... Slinger, Wisconsin
Longfellow School Addition ... Minot, North Dakota
New Junior High School ... Lincoln, Rhode Island
School No. 37 ... Indianapolis, Indiana
Coitsville Sch... ...ungstown, Ohio
Slinger C... ...Wisconsin
North... ...ichigan
Mo... ...Pa.
A... ...ri
Ha... ...an
East... ...onsin
Trilby S... ...edo, Ohio
St. Clair Ele... ...ittsburgh, Pa.
Suring High School ... Suring, Wisconsin
Venice School Addition ... Venice, Illinois
Draper School ... Schenectady, New York
Taylor School ... Ogden, Utah
Lee Eaton High School ... Northfield, Ohio
Schoolcraft High School ... Schoolcraft, Michigan
North Grade School ... Mt. Carmel, Illinois
East Richmond School ... Richmond Heights, Missouri
St. Lawrence School ... Indianapolis, Indiana
Addition to Public School ... Cyrus, Minnesota
High School ... Gettysburg, Pa.
Suring High School ... Suring, Wisconsin
Westview Elementary School ... Spokane, Washington
Jackson Memorial High School ... Massillon, Ohio
Redford Union Elementary School, ... Redford, Michigan
Gibson City High School ... Gibson City, Illinois
Fullerton School ... Fullerton, Pa.
Hoogland School ... Fort Wayne, Indiana
Brimley School ... Brimley, Michigan
Bay Village High School Addition ... Bay Village, Ohio
Brookfield Elementary School, ... Brookfield, Wisconsin

Hamilton Township School ... Franklin, Pa.
Homes School ... Spokane, Washington
Hastings School ... Framingham, Massachusetts
Holmes School ... Rochester, Minnesota
Senior High School ... Geneseo, Ohio
Diamond Lake Public School ... Mundelein, Illinois
Elementary School ... Alsace, Pa.
Lincoln School ... Sheybogan, Wisconsin
Addition to School Building ... Brewster, Minnesota
Mason Local School Addition ... Mason, Ohio
Vogal School Addition ... Evansville, Indiana
Taft Heights Elementary School ... Taft, California
West Elementary School ... Whitewater, Wisconsin
New High School ... Old Archar, Maine
Rockdale Primary School ... Cincinnati, Ohio
New Elementary School ... Lock Haven, Pa.
Cherry School ... Cherry, Minnesota
Coldwater High School ... Coldwater, Michigan
Pine Lake Grade School ... Rheinlander, Wisconsin
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...en Street School ... Somerville, Massachusetts
...rcy Grade School ... Marcy, Wisconsin
...mpfield High School ... Landsville, Pa.
...kmann Elementary School ... Salt Lake City, Utah
...ss Corners Grade School ... Tess Corners, Wisconsin
...dford Avenue School ... Middletown, New York
... Bastrop High School ... Bastrop, Louisiana
...ongstreet School ... Saginaw, Michigan
Lowell School Addition ... Duluth, Minnesota
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Elementary School ... Kenyon, Minnesota
Canyon Rim School No. 2 ... Salt Lake City, Utah
Colerian Township School ... Cincinnati, Ohio
Grade School ... Mineralpt, Wisconsin
Junior-Senior High School ... Hughesville, Pa.
Grade School ... Mineralpt, Wisconsin
Springfield Senior High School ... Akron, Ohio
Harbrock High School ... Harristown, Pa.
Ogden Grade School ... Ogden, Illinois
Purdy School ... Pennfield, Michigan
Power Elementary School ... Amherst, Ohio
Kewaunee Grade School ... Kewaunee, Wisconsin
Galena Township School ... La Porte, Indiana
Grade & High School ... Randolph, Minnesota
Burnside School ... East Hartford, Connecticut
New Junior High School ... Davenport, Iowa
Linwood Elementary School ... Linwood, New Jersey
Wheelersburg School ... Wheelersburg, Ohio
Vocational School ... Green Bay, Wisconsin
New Elementary School ... Huntington, Pa.
Hines School Addition ... Peoria, Illinois
Pomeroy Grade School ... Pomeroy, Washington

Hoover Elementary School ... Tulsa, Oklahoma
Pioneer School ... Bismarck, North Dakota
Wellington School ... Roseville, Michigan
Lowell School Addition ... Duluth, Minnesota
Lockport High School ... Lockport, Illinois
Grade School ... Waterford, Wisconsin
Park Eementary School ... Cambridge, Ohio
Hamilton Township School ... Franklin, Pa.
Curtis Elementary School ... Salt Lake City, Utah
St. Francis Xavier School ... Petoskey, Michigan
New Junior High School ... Davenport, Iowa
Fairview School ... Fairview, Montana
Picadome School ... Lexington, Kentucky
Kewanee High School ... Kewanee, Illinois
Garfield School ... Spokane, Washington
Marcy Grade School ... Marcy, Wisconsin
Ensign School ... Salt Lake City, Utah
Sumner Elementary School ... Syracuse, New York
Pleasant Grove School ... Lansing, Michigan
Junior High School ... Rock Falls, Illinois
Brandywine School ... Niles, Michigan
Franklin School ... Kent, Ohio
Evergreen School ... Ross Township, Pa.
Pius Xi High School ... Milwaukee, Wisconsin
New South High School ... Valley Stream, New York
Bedford Junior High School ... Bedford, Massachusetts
Gymnasium & Class Room ... Cando, North Dakota
Gibson City High School ... Gibson City, Illinois
Public School Addition ... Adrian, Minnesota
High School Addition ... Billian, Wisconsin
C. A. Arthur School ... Oklahoma City, Oklahoma
Maywood Elementary School ... Perryville, Maryland
Penn Bernville School ... Bernville, Pa.
Grade & High School ... Juneau, Wisconsin
Senior High School ... Hopkin, Minnesota
Haulicek School ... Berwyn, Illinois
Edgewood School ... Rock Hill, South Carolina
Altamont Elementary School ... Altamont, Utah
West Elementary School ... Whitewater, Wisconsin
Public School ... Garretson, South Dakota
Clay Local High School ... Portsmouth, Ohio
Ida Rural Agricultural School ... Ida, Michigan
Franklin Junior High School ... Brainerd, Minnesota
St. Francis Xavier School ... LaGrange, Illinois
Bristol School ... Webster Grove, Missouri
High School ... Albion, Indiana
Station Avenue School ... Ashtabula, Ohio
St. Ursula Elementary School ... Allison, Pa.
High School Addition ... Billian, Wisconsin
Lincoln School ... Savanna, Illinois
Senior High School ... Geneseo, Ohio
Livonia Elementary School ... Livonia, Michigan
Linn Grove School ... Linn Grove, Iowa
High School ... Henderson, Kentucky
Jolley Elementary School ... Vermillion, South Dakota
Jackson Memorial High School ... Massillon, Ohio
Nantucket High School ... Nantucket, Massachusetts
Wyoming Park High School ... Wyoming Park, Michigan
Verona Grade School ... Verona, Illinois
Grade School ... Arlington, Wisconsin
Grade & Junior High School ... Fairfield, Iowa
Elementary School Building ... Gettysburg, Pa.
Old Fort School ... Old Fort, Ohio
Forest Heights School ... Forest Heights, Maryland

Barrington High School ... Barrington, Illinois
Junior High School ... Washington, D. C.
Junior High School No. 167 ... New York, New York
Thirty-third Street School ... Ogden, Utah
Pius Xi High School ... Milwaukee, Wisconsin
East Junior High School ... Warren, Ohio
Willow Run High School ... Willow Run, Michigan
Mountain Iron School ... Mountain Iron, Minnesota
Brookfield Elementary School, ... Brookfield, Wisconsin
Montgomery Elementary School ... Ashland, Ohio
Public School Addition ... Wasena, Minnesota
Wood Township School ... Borden, Indiana
New School Addition ... Mt. Carroll, Illinois
Ardmore Site Elementary School ... St. Clair, Michigan
Lightner Elementary School ... York County, Pa.
Tess Corners Grade School ... Tess Corners, Wisconsin
Valley Junior High School ... Grand Fork, North Dakota
Bay Village High School Addition ... Bay Village, Ohio
West Biddle Street School ... West Chester, Pa.
Warren Elementary School ... Warren Twp, Michigan
Gifford School ... Gifford, Illinois
Livingston High School ... Livingston, New Jersey
Tess Corners Grade School ... Tess Corners, Wisconsin
North Site School ... Howell, Michigan
Springmeyer School ... Cincinnati, Ohio
New Albany Junior High School ... New Albany, Indiana
Thomson Grade School ... Thomson, Illinois
29 Palms Elementary School ... 29 Palms, California
Affton High School ... Affton, Missouri
Haverford School ... Haverford, Pa.
McLean High School ... Arlington, Virginia
Milltown High School ... Milltown, Indiana
Budd Avenue Elementary School ... Ashland, Ohio
Elementary School ... Belgium, Wisconsin
Field Grade School ... North Olmstead, Ohio
Maxfield Elementary School ... St. Paul, Minnesota
Keokuk Senior High School ... Keokuk, Iowa
Community Grade School ... York County, Pa.
Venice School Addition ... Venice, Illinois
Vienna White Elementary School ... Vienna, Virginia
Crivitz High School ... Crivitz, Wisconsin
Holy Name Parrish School ... Minneapolis, Minnesota
S. E. Harvey School ... Harvey, Illinois
Dartmouth High School ... Dartmouth, Massachusetts
Public School ... Mandan, North Dakota
Target Range School ... Missoula, Montana
Bristol School ... Webster Grove, Missouri

New Elementary School ... Huntington, Pa.
Jones School ... Cicero, Illinois
Oak Street School ... Flint, Michigan
New Elementary School ... Boy Village, Ohio
Howard Township School ... Duck Creek, Wisconsin
Valley High School ... Orderville, Utah
Boyd Elementary School ... Ohora Township, Pa.
Highcrest School ... Silmette, Illinois
Minneapolis Elementary School, ... Excelsior, Minnesota
Griffith High School ... Griffith, Indiana
New Senior High School ... Kellogg, Idaho
Frontier Central School ... Hamburg, New York
North West School ... Harvey, Illinois
High School Addition ... Billian, Wisconsin
Charman School ... Wyandotte, Michigan
Elementary School ... Edgewood, Pa.
Garnett Elementary School ... Fairview Place, Ohio
Lakeview High School ... St. Clair, Michigan
South Grade School ... Mt. Carmel, Illinois
Deanza School ... El Sabrant, California
Meacham Street School ... Somerville, Massachusetts
Scott Township School ... Evansville, Indiana
Draper School ... Schenectady, New York
Elementary School ... Alsace, Pa.
High School ... Coleman, Wisconsin
Greenhills Elementary School ... Greenhill, Ohio
Johnson School ... Benton Harbor, Michigan
Dundee High School ... Carpenters, Illinois
West Liberty School ... West Liberty, Iowa
Horton Watkins School ... Ladue, Missouri
Magna Elementary School ... Magna, Utah
Richland Township School ... Richland, Pa.
Pomeroy Grade School ... Pomeroy, Washington
Mimisila Elementary School ... Manchester, Ohio
Komarck School ... Riverside, Illinois
Elementary School Ward No. 4 ... Big Rapids, Michigan
Addition Elementary School ... Rushmore, Minnesota
Bear River High School ... Box Elder, Utah
Norview School ... Norview, Virginia
Steel Lake Elementary School ... Redona, Washington
Affton High School ... Affton, Missouri
Windsor Grade School ... Windsor, Wisconsin
High School ... Gettysburg, Pa.
Verona Grade School ... Verona, Illinois
Maryville Elementary School ... Rockville, Maryland
High School Addition ... New Holstein, Wisconsin
Ethel Boston School ... St. Louis Park, Minnesota

Layton Elementary School ... Layton, Utah
Fontana State Graded School ... Fontana, Wisconsin
Forestview School ... Bay Village, Ohio
Remus Elementary School ... Remus, Michigan
Garfield School ... Moline, Illinois
Scott Township School ... Evansville, Indiana
New Valley School ... Maplewood, Missouri
Maxwell School ... Maxwell, Iowa
James Lansey School ... Fall River, Massachusetts
La Mallie School ... La Mallie, Illinois
Blanche Stoddard School ... Iowa Falls, Iowa
Wheatland Center School ... New Munster, Wisconsin
West Deer Township High School ... Cheswick, Pa.
Metamora School Addition ... Metamora, Ohio
East Hill Elementary School ... Kent, Washington
Glenridge Junior High School ... Landover, Maryland
Mount Carmel High School ... Auburn, New York
Orem Senior High School ... Orem, Utah
Community Grade School ... Wheeling, Illinois
Nahant Elementary School ... Nahant, Massachusetts
New Classen High School ... Oklahoma City, Oklahoma
West Deer Township High School ... Cheswick, Pa.
Green Meadow School ... Rensselaer, New York
High School Addition ... New Harmony, Indiana
Steel Lake Elementary School ... Redona, Washington
Grade School ... Waterford, Wisconsin
Elementary School ... Oakmont, Pa.
Frohardt School ... Granite City, Illinois
Forrest Avenue School ... Ypsilanti, Michigan
Mimisila Elementary School ... Manchester, Ohio
Fir Grove School ... Beaverton, Oregon
Kratz Elementary School ... St. Louis, Missouri
Altamont Elementary School ... Altamont, Utah
Lincoln School ... Elmhurst, Illinois
Holy Name Parish School ... Minneapolis, Minnesota
East Elementary School ... Whitewater, Wisconsin
Elementary School Building ... Gettysburg, Pa.
High School ... Marblehead, Massachusetts
West Elementary School ... Grondville, Michigan
Smith Township School ... Chevubusco, Indiana
Shorland School Addition ... Toledo, Ohio
Aynor High School ... Aynor, South Carolina
Kratz Elementary School ... St. Louis, Missouri
Edison School ... Eugene, Oregon
Hawthorne Elementary School ... Tulsa, Oklahoma
Basic Elementary School Unit No. 1 ... Reno, Nevada
McLean Elementary School ... Wichita, Kansas

Junior High School ... Howard County, Maryland
Standard Unit School ... Cambridge, Massachusetts
Parrwood School ... Sidney, Ohio
Pullen School ... Mount Pleasant, Michigan
Holland Central School ... Holland, New York
Alberton School ... Alberton, Montana
School Addition ... Dodge Center, Minnesota
Riverdale School ... Riverdale, New Jersey
Haverford School ... Haverford, Pa.
Hawthorne Elementary School ... Tulsa, Oklahoma
Austin School ... Vermillion, South Dakota
Anson Jones Elementary School ... Dallas, Texas
John Campbell Elementary School, Selah, Washington
Libbie Edward School Addition ... Salt Lake City, Utah
Elementary School ... Rochester, Wisconsin
Brandywine School ... Niles, Michigan
Curtis Elementary School ... Salt Lake City, Utah
Simmons Elementary School, Aberdeen, South Dakota
Shaker Heights High School ... Shaker Heights, Ohio
Craton Montgomery School ... Syracuse, New York
Centerville High School ... Centerville, Michigan
Hageman School Addition ... Salina, Kansas
Bentley School ... Boston, Massachusetts
Hamilton Senior High School ... Hamilton, Illinois
Fletcher Drive School ... Los Angeles, California
New Elementary School ... Waynedale, Indiana
Elementary School ... Oakmont, Pa.
High School Addition ... Port Washington, Wisconsin
West Bountiful Elementary School ... Bountiful, Utah
Anson Jones Elementary School ... Dallas, Texas
Overdale Elementary School ... Tallmadge, Ohio
Frankenlust Township School ... Frankenlust, Michigan
Elmhurst Junior High School ... Elmhurst, Illinois
La Sierra High School ... Sacramento, California
Maxwell School ... Maxwell, Iowa
Elementary School Building ... Elimiy, Minnesota
Hempfield High School ... Landisville, Pa.
Grade School ... Arlington, Wisconsin
West Site Elementary School ... Howell, Michigan
Douglas School ... Clinton, Illinois
Granger Junior High School ... Chula Vista, California
New Albany High School ... New Albany, Indiana
Addition Berkeley School ... Berkeley, Michigan
Fern Place School ... Plainview, New York
Frontier Central School ... Hamburg, New York
Mount Zion Elementary School ... York County, Pa.
Nantucket High School ... Nantucket, Massachusetts
Andulusia School Addition ... Andulusia, Illinois
John Campbell Elementary School, Selah, Washington
Felicity High School ... Felicity, Ohio
Edgewood School ... Clarenceville, Michigan
Southern Junior High School ... Downey, California
Rockingham Roosevelt School ... Davenport, Iowa
Grade School ... Kingman, Kansas
Samuel Woodfill School ... Fort Thomas, Kentucky
Westchester High School ... Los Angeles, California
Longfellow School ... Wheaton, Illinois
Bridgeport Elementary School ... Bridgeport, Michigan
Public School ... Adams, North Dakota
Frontier Central School ... Hamburg, New York
Verona School Addition ... Verona, Ohio
Gill Hall Elementary School ... Jefferson, Pa.
Elementary School ... Rochester, Wisconsin
Beadle School ... Yankton, South Dakota

Arlee School ... Arlee, Montana
Jefferson School ... Elmhurst, Illinois
Hopewell School ... Toledo, Ohio
Coon Rapids Elementary School ... Anoka, Minnesota
Orem Senior High School ... Orem, Utah
Haverford School ... Haverford, Pa.
Jerome School ... Maplewood, Illinois
St. Cloud School ... St. Cloud, Wisconsin
Elementary School ... Gilboa, New York
Maple Road School ... Walled Lake, Michigan
Polk Township School ... Tyner, Indiana
Lexington, School ... Los Gatos, California
Leal School ... Urbana, Illinois
Alexandria High School ... Alexandria, Virginia
Eastwood Elementary School ... Cincinnati, Ohio
Existing School ... Minneapolis, Minnesota
Glenridge Junior High School ... Landover, Maryland
Lane School ... Lane, Illinois
Carole Highland School ... Neartakoma, Maryland
Lincoln School ... Richmond, Missouri
Father Judge High School ... Philadelphia, Pa.
Fairview Grade School ... Snokie, Illinois
La Prairie School ... Janesville, Wisconsin
Public School ... Cando, North Dakota
Eastmont Elementary School ... Dayton, Ohio
Rhodes School ... River Grove, Illinois
Elementary School ... Cohasset, Massachusetts
Pinckney High School ... Pinckney, Michigan
Odessa Elementary School ... Odessa, New York
Jennings Elementary School ... Jennings, Missouri
Howard Township School ... Duck Creek, Wisconsin
Clearview Elementary School ... York County, Pa.
Crown Point High School ... Crown Point, Indiana
Wheatland Center School ... New Munster, Wisconsin
S. School Addition ... Kingham Massachusetts
New High School ... Fairmont, Minnesota
Garfield School ... Lorain, Ohio
New Technical High School ... St. Louis, Missouri
Soldier Iowa School Addition ... Soldier, Iowa
School Addition ... Cambridge, Minnesota
Morris High School ... Morris, Illinois
St. Lawrence School ... Indianapolis, Indiana
Bemiss Elementary School ... Spokane, Washington
Holland Central School ... Holland, New York
Kewaunee Grade School ... Kewaunee, Wisconsin
Elementary School ... Alsace, Pa.
East Grenwich High School ... East Greenwich, R. I.
Miller Grade School ... Miller, South Dakota
Lubbock High School ... Lubbock, Texas
Valley High School ... Orderville, Utah
Hawthorne School Addition ... Wheaton, Illinois
North Junior High School ... Downey, California
Fenn School ... Concord, Massachusetts
Paducah High School ... Paducah, Kentucky
Grade School ... Swea City, Iowa
Public School Addition ... Napoleon, North Dakota
Emerson School Addition ... Sidney, Ohio
Elementary School ... St. Louis, Missouri
Grade School ... Independence, Wisconsin
East Goshen Elementary School ... Goshen, Pa.
Sabin School ... Portland, Oregon
Othello High School ... Athello, Washington
C. A. Arthur School ... Oklahoma City, Oklahoma
McKinley School ... East Moline, Illinois

Lincoln School ... Sheybogan, Wisconsin
Longfellow School ... Wheaton, Illinois
Ben Franklin High School ... Los Angeles, California
New Addition to High School ... Charlestown, Indiana
Stevens T. Mason School ... Redoford, Michigan
Hillcrest School Addition ... East Moline, Illinois
Ridge School ... Bellevue, Ohio
Clearview Elementary School ... York County, Pa.
Castelton School Addition ... Castelton, New York
Wheatland School ... Wheatland, California
Paducah High School ... Paducah, Kentucky
High School ... Iowa Falls, Iowa
Elementary School ... St. Louis, Missouri
Junior-Senior High School ... Hughesville, Pa.
Wogaman School ... Dayton, Ohio
Grade School ... Wautoma, Wisconsin
Cossitt School ... La Grange, Illinois
Bainbridge Elementary School, Bainbridge, Maryland
West End Grammar School ... Washington, Indiana
Lightner Elementary School ... York County, Pa.
High School Addition ... New Holstein, Wisconsin
Laurens Central School ... Laurens, New York
Union Local School ... Lombardsville, Ohio
Public School ... Madelia, Minnesota
Hillcrest School Addition ... East Moline, Illinois
Jones Elementary School ... Greencastle, Indiana
Lincoln School ... Taft, California
Garfield School ... Madison, South Dakota
Opportunlay School ... Denver, Colorado
Bellemeade School ... Richmond, Virginia
Preble School ... Preble, Wisconsin
Sahs School ... Stickney, Illinois
Cherrelyn Elementary School ... Englewood, Colorado
Elementary School ... Cohasset, Massachusetts
Magna Elementary School ... Magna, Utah
Wagoman School ... Dayton, Ohio
Public School ... Akeley, Minnesota
High School ... Gettysburg, Pa.
Larimore School Addition ... St. Louis, Missouri
Highcrest School ... Silmette, Illinois
Waverly High School ... Waverly, Ohio
East Hill Elementary School ... Kent, Washington
Brissette School ... Kawkawlin, Michigan
Center Grade-High School ... Stone Cros, Indiana
Park Hills Elementary School ... Hanover, Pa.
High School ... Cass Lake, Minnesota
High School ... Coleman, Wisconsin
Community Grade School ... York County, Pa.
Uniondale High School ... Uniondale, New York
Wright School Addition ... Clayton, Missouri
Nixon School Addition ... Westchester, Illinois
Fine Arts Addition to High School ... Jefferson, Indiana
Willow Glen Senior High School, San Jose, California
Lena Whitmore Grade School ... Moscow, Idaho
Elementary School Ward No. 3 ... Big Rapids, Michigan
Public School ... Garretson, South Dakota
Elementary School ... Fennimore, Wisconsin
Lincoln Grade School ... Jamestown, North Dakota
Community High School ... Mount Morris, Illinois
Boyd Elementary School ... Ohora Township, Pa.
Hall Park School ... Belding, Michigan
Manchester School ... Manchester, Ohio
Roosevelt Junior High School ... Bellwood, Illinois
Franklin School ... Spokane, Washington
[illegible] ... Ypsilanti, Michigan
[illegible] School ... Dryden, New York
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[illegible] School ... Landsville, Pa.
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[illegible] ... Redford, Michigan
[illegible] Elementary School ... Bountiful, Utah
[illegible] School ... Spokane, Washington
[illegible] ... Berwyn, Illinois
[illegible] ... Waterford, Wisconsin
[illegible] School Unit No. 3 ... Reno, Nevada
[illegible] School ... Quincy, Massachusetts
[illegible] ... Chenoa, Illinois
[illegible] School ... Sacramento, California
[illegible] School ... Arlington, Virginia
[illegible] ... Blairstown, New Jersey
[illegible] ... [illegible] Illinois

Elk School ... Elk, Washington
Karl Havlecek School ... [illegible]
Windsor Grade School ...
Buckingham Elementary ...
Francis Willard School ...
Eugine Field School ...
Saline High School ...
Midview High School ...
High School ...
Sparks Elemenary School ...
Mary Snow School ...
Washington Junior High S...
Junior High School ...
Eastmont Elementary Sch...
Bonneterre School ...
Schoolcraft High School ...
Knox High School ...
San Miguel School ...
Douglas School ...
Maple Heights High Scho...
Hart Elementary School ...
Elementary School ...
Layton Elementary Schoo...
Vienna White Elementar...
Lincoln Elementary Sch...
Lincoln Elementary Scho...
Jones School ...
Liberty Township School ...
Russell School ...
Rowley Elementary Schoo...
E. Lamperet Elementary ...
Fontana State Graded Sc...
East Side Elementary Sch...
Chadwick High School ...
Riverside School ...
Elementary School Ward N...
Belleville Vocational Sch...
Harbrock High School ...
Chattaroy School ...
St. Cloud School ...
Public School Addition ...
Elementary School ...
Grade School ...
Kewanee Grade School ...
Kern Valley High School ...
Masters Avenue Element...
Powers Elementary Schoo...
Roosevelt School ...
La Prairie School ...
Mayville Elementary Scho...
West Ward School Additi...
Macomb Park Elementary ...
Fairmount School ...
Butterworth School ...
Uniondale High School ...
Penn Bernville School ...
Dundee High School ...
Elementary School ...
White Pigeon High Scho...
Ida Rural Agricultural Sc...
Hawthorne Junior High Sc...
Manchester High School ...
High School ...
Cherry School ...
San Juan High School ...
Junior High School ...
Westview Elementary Sch...
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New High School ...
Richland Township Schoo...
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Wayne Township School ...
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St. Cl[illegible] Elementary Scho...
Ridgeview Elementary Sc...
Junior-Senior High Schoo...
Elementary School ...
Reed City School ...
Fir Grove School ...
Public School ...
Harper School ...
Manchester High School ...
Clay High School ...
Ridgeview Elementary Sc...
New High School ...
Virgil Central School ...
Van Buren Elementary Sc...
Ashwood Elementary Sch...
Grand Island High Schoo...
Lincoln Elementary Schoo...
East Avondale ...

More Than 150,000 Classroom Installations



Lincoln School ... Bisbee, Arizona
James A. Garfield School ... East Chicago, Indiana
Jefferson School ... Pueblo, Colorado
Buena Elementary School ... Buena, Washington
Sussex Elementary School ... Essex, Maryland
Hayestown Elementary School, Danbury, Connecticut
Patterson Elementary School ... Washington, D. C.
Elementary School ... Wanesburg, Missouri
Henry B. Endicott School ... Endicott, New York
St. Gertrude School ... Maderia, Ohio
Potterville School ... Potterville, Michigan
Grade School ... Independence, Wisconsin
Othello High School ... Athello, Washington
Science Rooms Central Union High, Fresno, California
East High School ... Waterloo, Iowa
Lewiston High School ... Lewiston, Maine
Elementary & High School ... Haviland, Ohio
Fletcher Street School ... Kalamazoo, Michigan
Grade School Addition ... Hardwick, Minnesota
Highcrest School ... Silmette, Illinois
Father Judge High School ... Philadelphia, Pa.
Lincoln School ... Park Falls, Wisconsin
Venice High School ... Los Angeles, California
New School Addition ... Mt. Carroll, Illinois
Caro High School ... Caro, Michigan
Fairgrounds School ... Nashua, New Hampshire
Public School ... Alberta, Minnesota
High School Addition ... New Holstein, Wisconsin
Anaconda High School ... Anaconda, Montana
Lee Thurston High School ... Detroit, Michigan
North Grade School ... Franklin, Illinois
Franklin Elementary School ... Sacramento, California
Liberty Township School ... Sharpsville, Indiana
Bainbridge Elementary School, Bainbridge, Maryland
Spann School ... Pueblo, Colorado
Chester School ... Chester, Montana
North High School ... North Valley, New York
Fred E. Smith School ... Akron, Ohio
High School ... Burlington, Wisconsin
Hempfield High School ... Landisville, Pa.
Louro Wilder School ... Sioux Falls, South Dakota
Backmann Elementary School ... Salt Lake City, Utah
Chadwick High School ... Chadwick, Illinois
Jennings High School ... Jennings, Missouri
Ernest R. E. Elliott School ... Munster, Indiana
Libbie Edward School Addition ... Salt Lake City, Utah
Wyoming Park High School ... Wyoming Park, Michigan
Wharton Township Grade School ... Farmington, Pa.

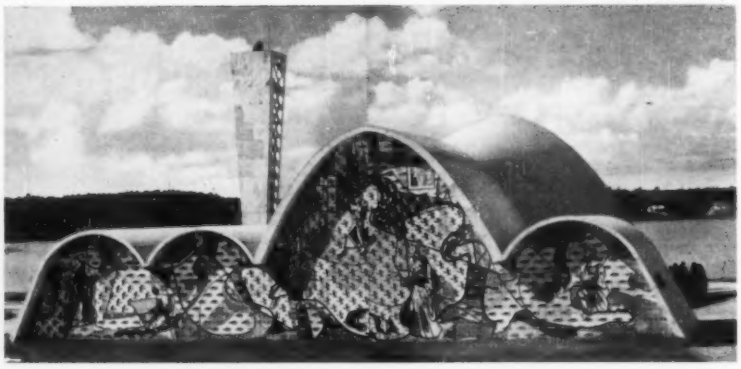
Riley Elementary School Addition, Great Bend, Kansas
Rockingham Roosevelt School ... Davenport, Iowa
Hebertsville School ... Hebersville, New Jersey
Wheeler City High School 87 ... Bartlett, Nebraska
West Biddle Street School ... West Chester, Pa.
Garfield School ... Madison, South Dakota
Ensign School ... Salt Lake City, Utah
Godfrey Elementary School ... Alton, Illinois
Elementary School ... Cohasset, Massachusetts
Brentmoor School ... Mentor, Ohio
Manchester High School ... Manchester, Pa.
North East School ... Fon du Lac, Wisconsin
Austin School ... Vermillion, South Dakota
Bemiss Elementary School ... Spokane, Washington
Griffith High School ... Griffith, Indiana
East Wing School ... Snokie, Illinois
Roosevelt School ... Taft, California
Patterson Elementary School ... Washington, D. C.
Haseltine School ... Portland, Maine
Riley Elementary School Addition, Great Bend, Kansas
Mount Vernon School ... Newark, New Jersey
Headlands School ... Mentor, Ohio
Woodlawn School ... Hamburg, New York
East Lake Road School ... Harbor Creek, Pa.
Sabin School ... Portland, Oregon
Belleville Vocational School ... Belleville, Ohio
St. Francis Xavier School ... LaGrange, Illinois
Griffith High School ... Griffith, Indiana
Brentwood Junior High School ... Pacific Pa, California
Nampa High School ... Nampa, Idaho
Snug Harbor School ... Quincy, Massachusetts
Torrey Woods School ... Grosse Point, Michigan
Simmons Elementary School, Aberdeen, South Dakota
Bear River High School ... Box Elder, Utah
Franklin Heights School ... Columbus, Ohio
Gilboa Elementary School ... Gilboa, New York
Haulicek School ... Berwyn, Illinois
Ben Franklin School ... Los Angeles, California
West End Grammar School ... Washington, Indiana
Manchester High School ... Manchester, Michigan
Longfellow School Addition ... Sidney, Ohio
Gill Hall Elementary School ... Jefferson, Pa.
Maple Hill High School ... Rensslaer, New York
Snug Harbor School ... Quincy, Massachusetts
Laidlaw School ... Western Springs, Illinois
Cuyama Classroom ... Cuyama, California
New Elementary School ... Eatontown, New Jersey
Whiteman Elementary School ... Spokane, Washington

Mount Airy [illegible]
Addition to School [illegible]
Mount Airy Elementary Sch[illegible]
Arlington Elementary School ... Spo[illegible]
Elementary School ... M[illegible]
Dundee High School ... Carpe[illegible]
Cherry School ... Cher[illegible]
Goodrich Elementary School
Daniel Boone School ... University [illegible]
Grade School ... Swe[illegible]
Chattaroy School ... Chattaro[illegible]
Hawthorne Junior High School, Wauwato[illegible]
York Community High School ... Elmhurst, Illinois
Willow Glen Senior High School, San Jose, California
Thirty-third Street School ... Ogden, Utah
Elementary School Ward No. 5 ... Big Rapids, Michigan
Westfield Central School ... Westfield, New York
Torrey Woods School ... Grosse Pointe, Michigan
South West School ... Harvey, Illinois
East Kerns School ... Kearns, Utah
Kern Valley High School ... Isabella, California
Marion Elementary School ... Cleveland, Ohio
New Albany High School ... New Albany, Indiana
Clay High School ... Toledo, Ohio
Elk School ... Elk, Washington
E. Lamperet Elementary School ... Lancaster, Pa.
Hamburg Senior High School ... Hamburg, New York
Elementary School Addition ... Bagley, Minnesota
Elsie Elementary School ... Elsie, Michigan
Riverside School ... Salt Lake City, Utah
Roosevelt School ... Spokane, Washington
Sheldon Street School ... Rantoul, Illinois
West Side Elementary School ... Gouverneur, New York
Buckingham Elementary School ... Buckingham, Pa.
Port Jefferson School ... Port Jefferson, Ohio
Glengary School ... Walled Lake, Michigan
[illegible] School Addition ... [illegible]

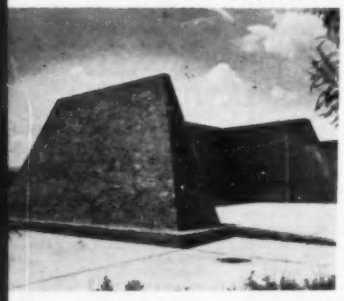
AAF

herman nelson

Church, Brazil. Niemeyer



Fronton, Mexico. *Arai*



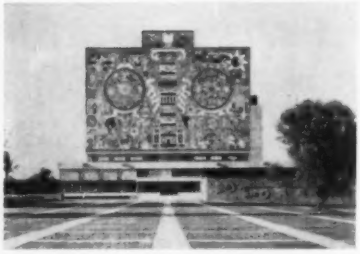
Pyramid of the Sun, Mexico



Factory, Colombia. *Pizano*



Library, Mexico. *O'Gorman*



Stadium, Venezuela. *Villanueva*



House, Uruguay. *Bonet*



Housing Development, Venezuela. *Bermudez*



Office Bldg., Venezuela. *Vegas y Galia*



A SURVEY OF ARCHITECTURE IN LATIN AMERICA

Latin American Architecture Since 1945. By Henry-Russell Hitchcock. The Museum of Modern Art (New York) 1955. 204 pp. illus. $6.50.

LATIN AMERICA HAS GROWN tremendously in the past 15 years. This continent, which until recently has been remote from the rest of the world, is at present undergoing a great expansion in population growth (about 3 per cent a year — double the rate of the rest of the world) and economy. The result: a building boom, so far unparalleled in the rest of the world.

In the Museum of Modern Art's exhibition of Latin American Architecture Since 1945 definite characteristics of this building boom are at once evident: In much of the work there is an over-all boldness not to be found in this country. This is a boldness of form as well as of monumental scale and vivid, often strident color.

Two dimensional art, mostly in mosaic is much employed, as is sculpture, often with real distinction.

The influence is predominantly of the International School and especially of Le Corbusier.

The characteristic structural material is ferro-concrete, chiefly in conventional cage construction but sometimes in thin shell form.

Henry-Russell Hitchcock, commissioned by the Museum's International Program to make this survey, discusses these characteristics and gives some historical background of Latin American architecture in an accompanying book.

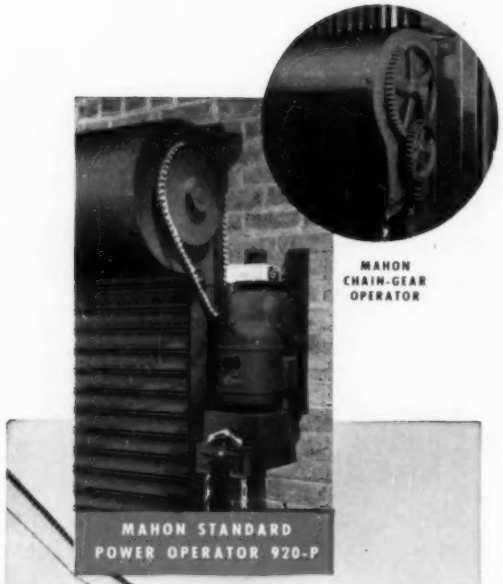
In the first place, Mr. Hitchcock states that "the lands where this major flowering of modern architecture has taken place in the last twenty years are not unknown to the history of architecture." He sites in particular Mexico and the Andean highlands.

He continues his historical background with the explanation that "the richness of colonial architecture from the 16th century to the early 19th century, especially in its more decorative aspects, and the curious flavor arising from the elaboration of various Renaissance and Baroque themes by Italian craftsmen, produced a series of style phases where common qualities give the adjective 'colonial' a far more precise meaning than it had with us."

(Continued on page 60)

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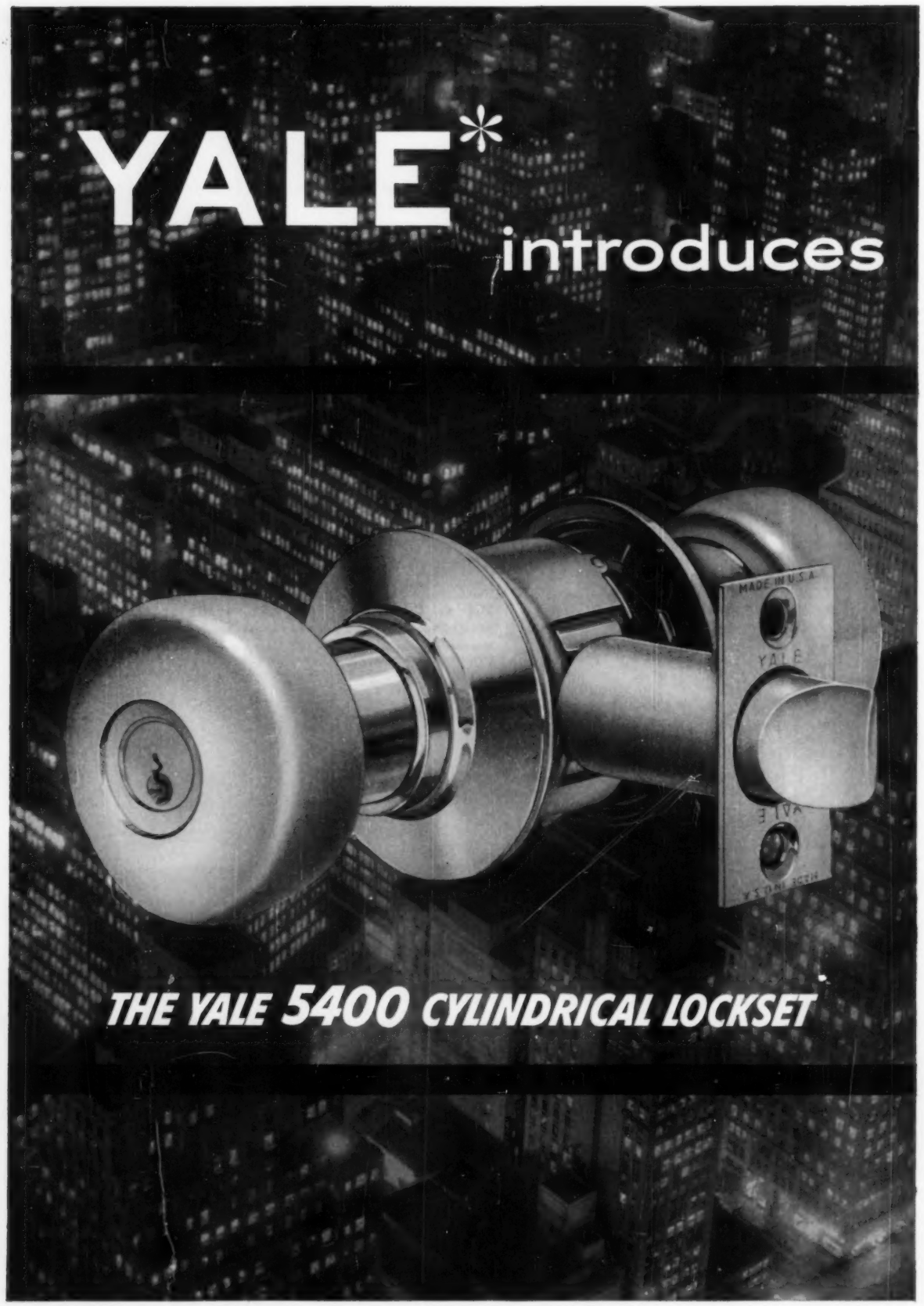
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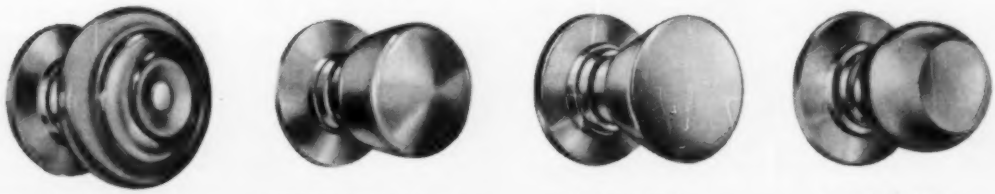

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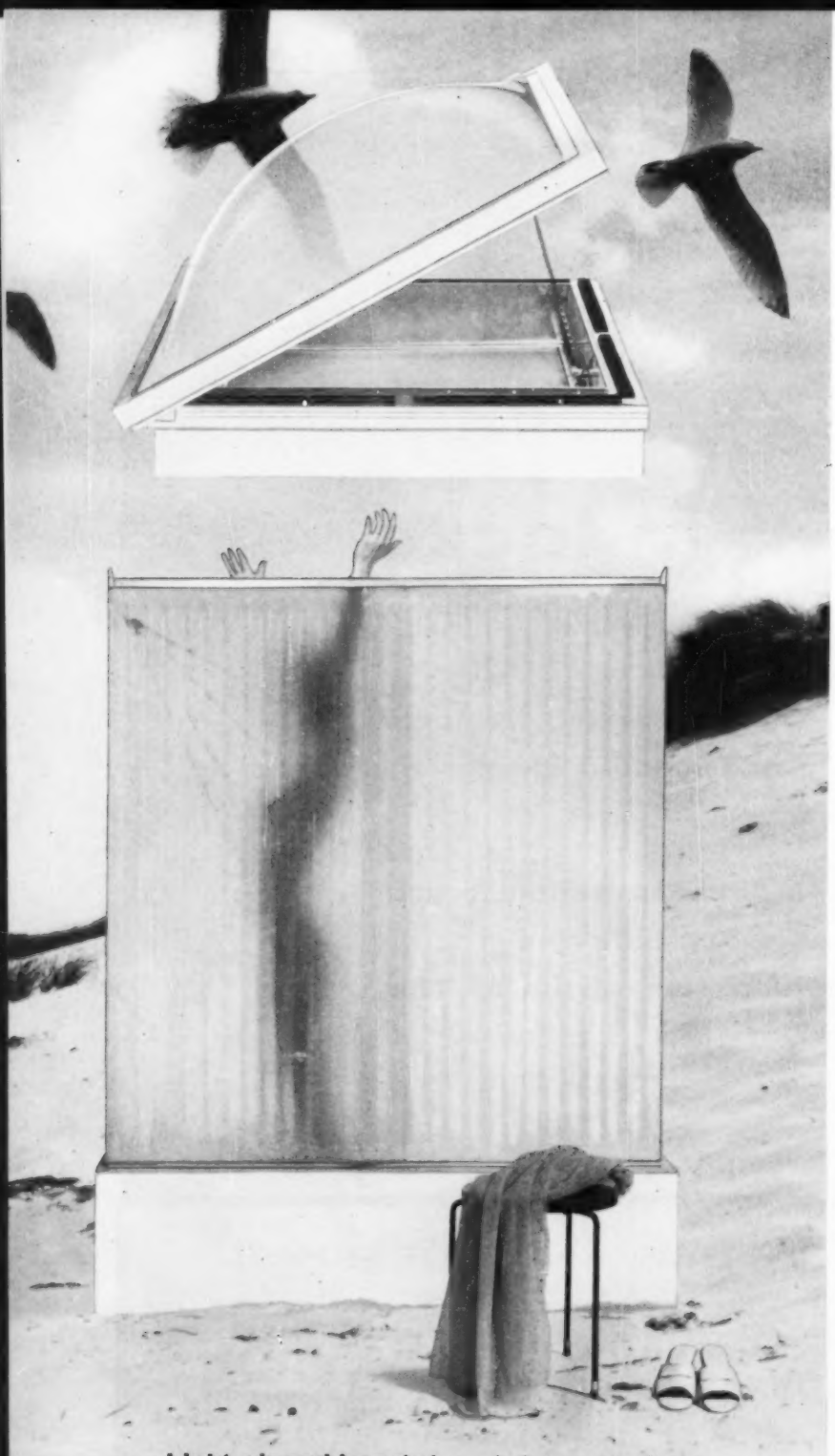
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REQUIRED READING

(Continued from page 56)

Neither the 19th century nor the early 20th century Latin American architecture seems to have produced important indigenous developments.

In the contemporary architectural expansion "even nationalistic characteristics are often better explained by different climatic conditions or different materials and methods of construction than by deeper cultural currents." The author elaborates this statement by explaining that despite the large range of longitude on either side of the equator the variety of climatic conditions in the most heavily populated areas is, perhaps, less than in the United States. Since most of the principal cities are located high in mountains, the dominant character of the climate is warm-temperate rather than hot-tropical. Nevertheless, the sun creates problems both of heat and glare unfamiliar in much of the northern hemisphere and has a profound affect on architecture in the matter of sun control devices and the use of color.

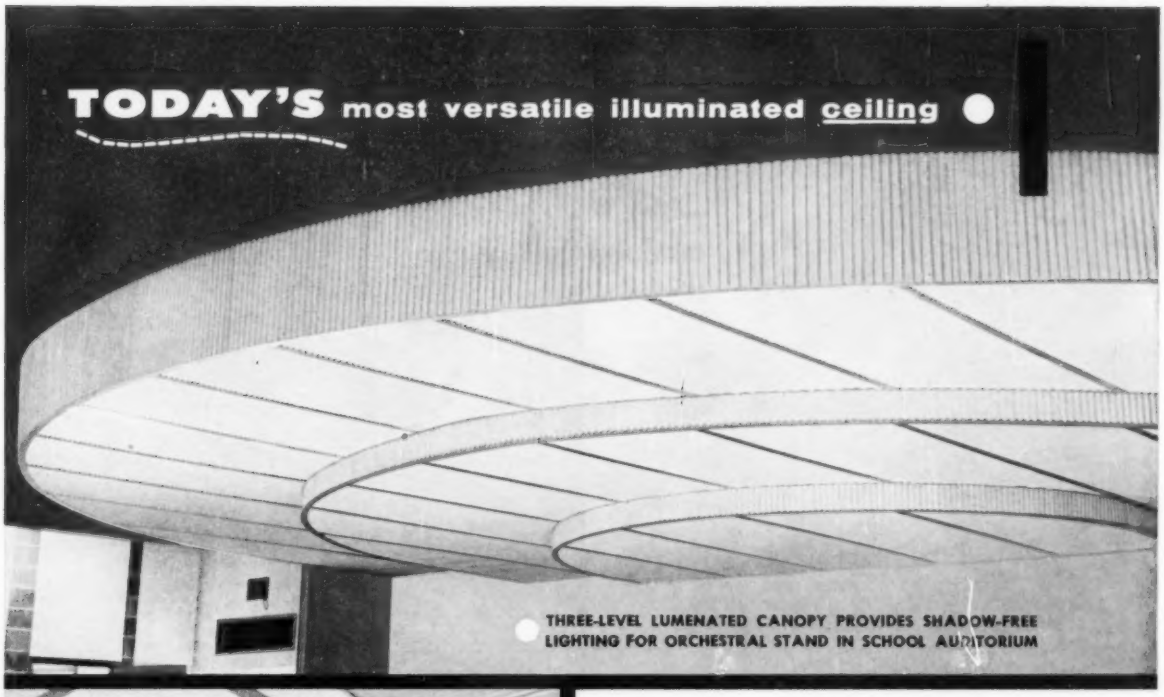
As for materials — this homogenity is best explained by what is almost completely lacking. Latin America produces almost no structural steel and seems not to be inclined to import too much of it. Structural timber is scarce and so are competent carpenters. Building stones and marbles are inferior and thus it is that concrete, reinforced in various ways, is the characteristic material.

Mr. Hitchcock explains the uniqueness of forms expressed in Latin America: "Perhaps there still exists, in countries which have a tradition of masonry vaulting, more innate sympathy for the vault-like shapes of shell concrete construction. But certainly the lack of structural steel and timber all but forces such solutions where wide spans are needed and encourages their substitution for flat slabs even in small-scale construction. Curved skylines such as segmental and paraboloid forms produce are far more common than elsewhere in the world . . ."

"Architecture," the author continues, "even in modern times, is much affected by psychological as well as by material factors." Latin America is inherently more of an International continent than it might at first be assumed. In the first place, while the earliest European settlers almost all come from the Iberian penninsula the Spanish and Portuguese cultures are by no means identical. From colonial times other European immi-

(Continued on page 330)

TODAY'S most versatile illuminated ceiling



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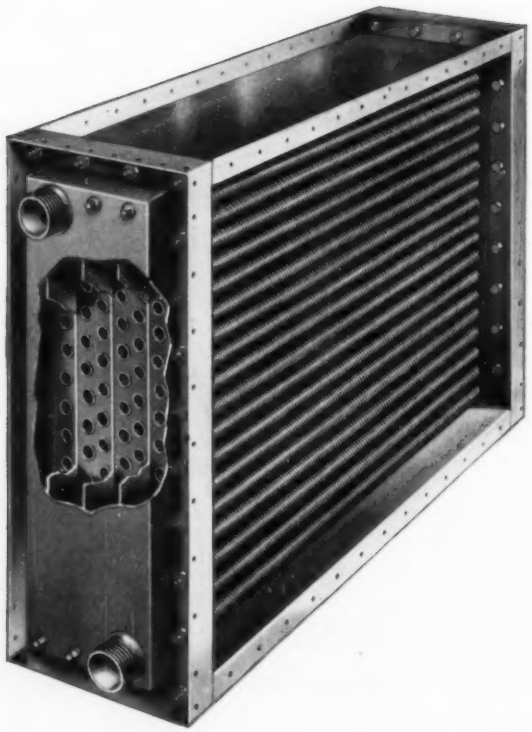
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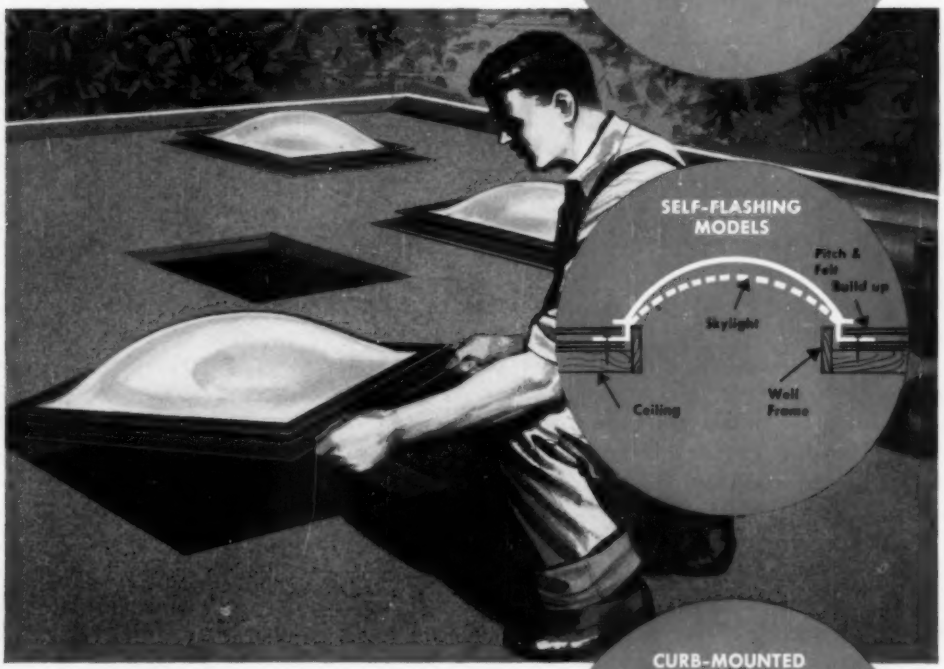
DOUBLE DOME SKYLIGHTS

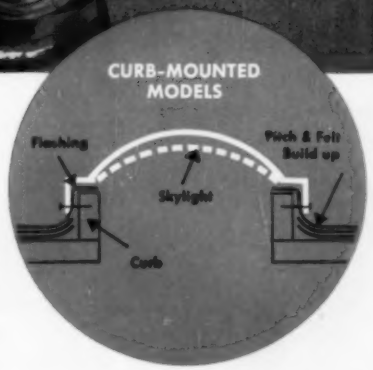


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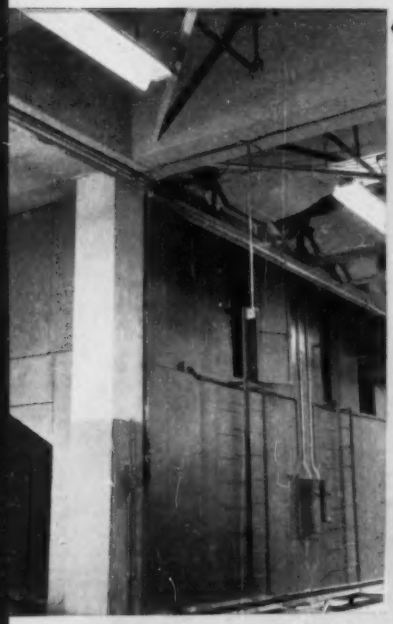
7 Acres of Building completed in 6 months with 10 ACRES OF LATH and plaster FIREPROOFING

...for fire protection up to 4 hours

Construction of the Chrysler Division's new Building 41, a two story body paint and finishing plant, involved certain special problems. Contractors were faced with the problem of bringing in materials while the building site was being used for the production of the "Chrysler" Car on a 16 hour production schedule. All construction work had to be done without interruption of this schedule.

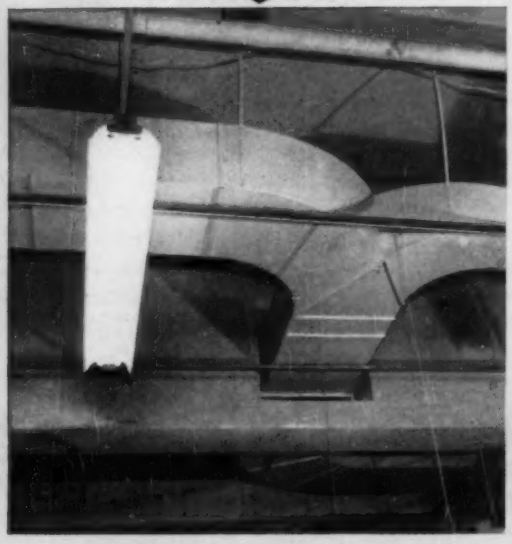
Since the second floor contained spray booths and gas drying ovens, the supporting structural steel was fireproofed with a lath and plaster ceiling in order to meet fire protection requirements. In addition, certain areas of the second floor were cut off the main area by means of fire and smoke baffles.

In less than 16 weeks, working around moving conveyors, mechanical installation, and concrete placing, over 47,000 sq. yards of 1" thick plaster was machine applied on lath. It provided fireproofing for structural steel members up to a 4 hour rating, made appreciable steel savings through a drastic reduction in dead load weight, and assisted greatly in completing this 285 x 1040 foot, two-story building approximately 6 months after steel erection was started.

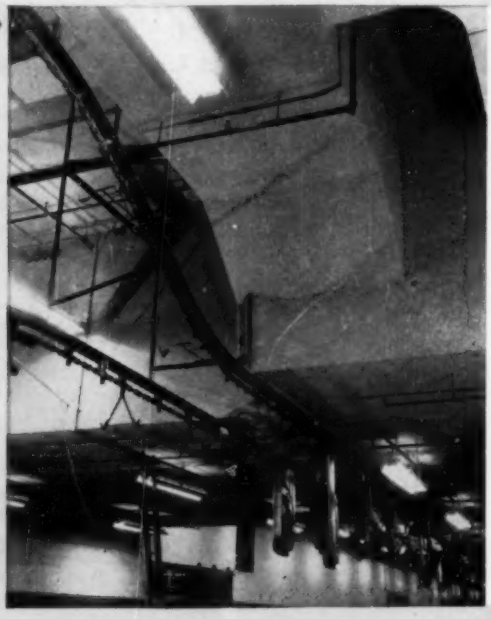


• Shell (or membrane) lath and plaster fireproofing around trusses, columns or beams.

JULY 1



• Open spaces between truss struts used for duct passages have plaster returns to insure complete fire protection for truss members.



• Lath and plaster ceiling protects steel flooring above.



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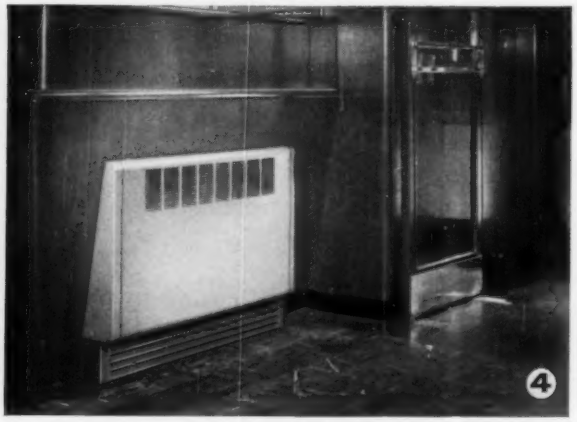


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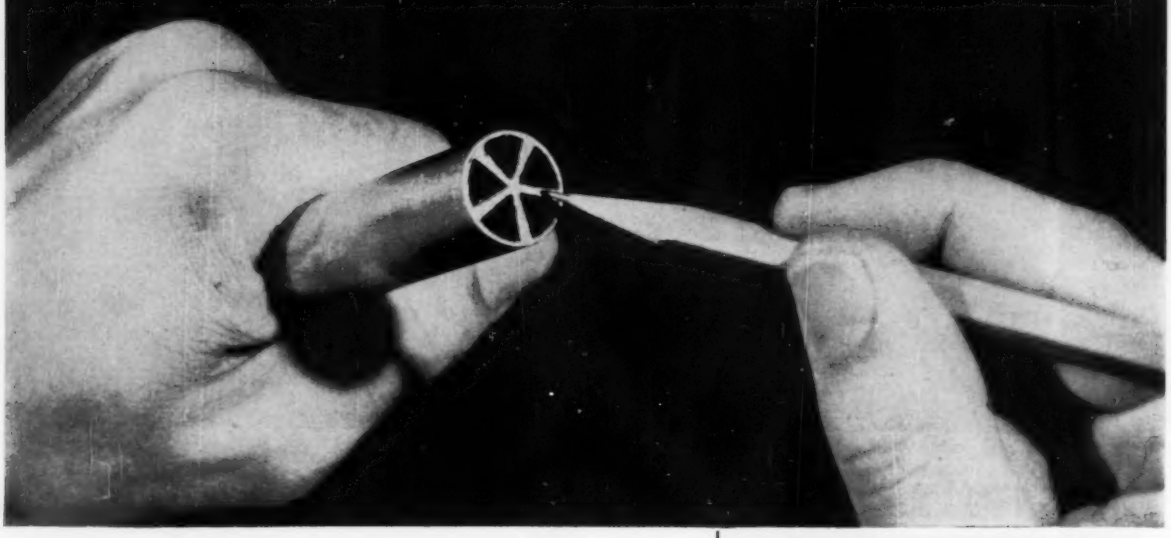
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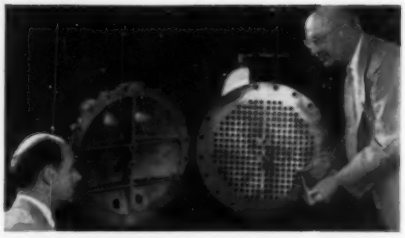
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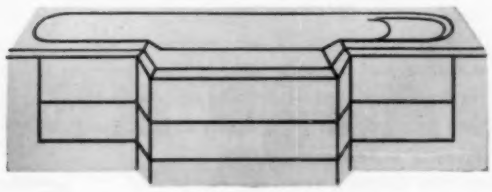
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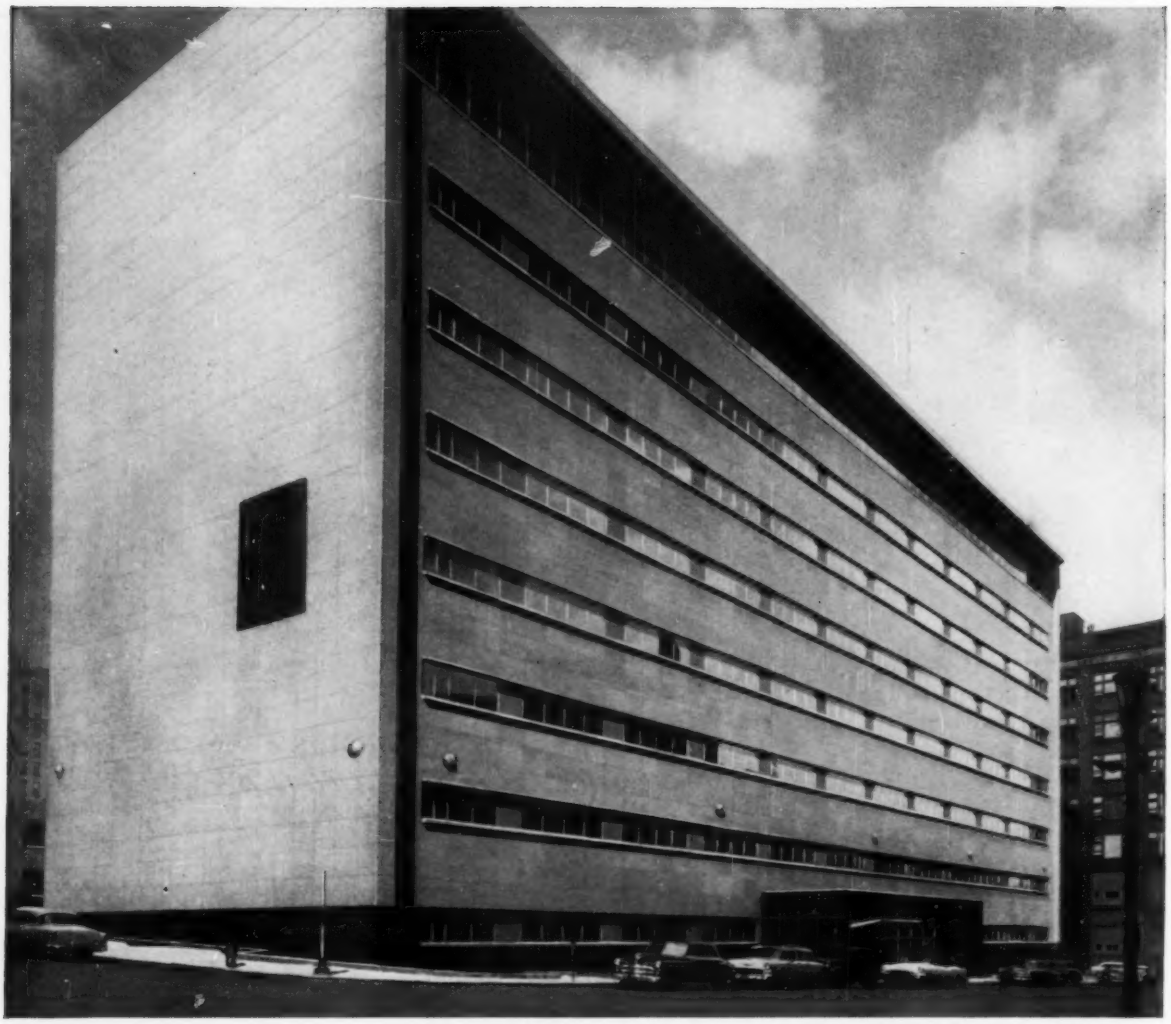


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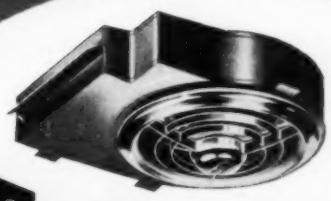
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Now, with Pryne Room Rated fan and light calculators you can quickly and easily select the right Blo-Fan or Pry-Lite to fit the job.



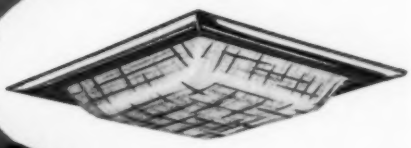
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ROOM RATED *Blo-Fans*

In exhaust ventilating, Pryne Room Ratings are your assurance of the required air change cycle . . . under realistic operating conditions. To select the right exhaust fan for any room all you need is the room square footage and the Pryne Room Rated Fan Calculator.



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In lighting, Pryne Room Rating tells you quickly from the room square footage the exact lighting fixtures required to assure the proper level of illumination in every type of room.

FREE CALCULATORS!

Scientifically tested for accuracy at Pryne's new Room Rating Laboratory! With Rm Calculators all you need are square footage figures. Takes the work and guesswork out of buying or specifying ventilating and lighting!

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Rush the FREE Room-Rated Calculators checked:
☐ Fan Calculator ☐ Light Calculator

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MANUFACTURERS OF pryne TILTING HOODS · BLO-FANS · PRY-LITES · INFRA-RED CEILING HEATERS

Washrooms of another notable building finished in Carrara Glass

● Over and over again, leading architects turn to Carrara Structural Glass when it comes to the specification of a wall finishing material for washrooms in important new buildings. And Carrara Glass has many outstanding qualities which make it worthy of this architectural selection.

CARRARA® GLASS IS:

True Glass of the finest quality. Every piece is mechanically ground and polished. It permits true and even joints, without lippage or warpage.

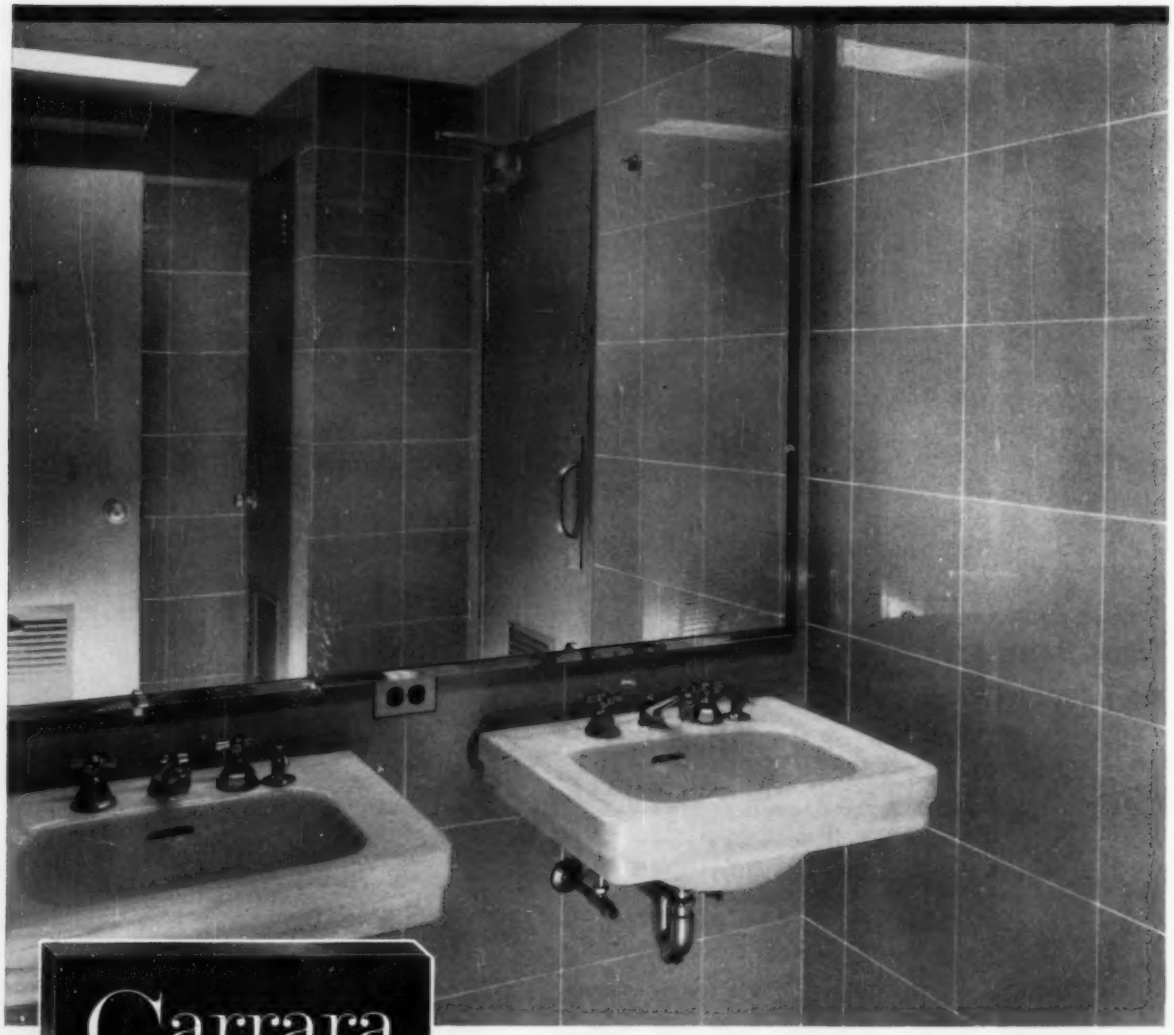
Beautiful. Available in ten lovely colors, gleaming Carrara Glass adds a note of distinction and dignity to every building in which it is used.

Permanent. Its smooth, homogeneous surface is unaffected by moisture, soap, damp atmospheres, and pencil marks. Carrara won't check, craze, stain or fade; it won't absorb odors.

Sanitary. Because Carrara is installed in large sections, it has fewer joints and crevices to catch dirt and dust. Its smooth, highly polished finish is easy to keep clean; an occasional wiping with a damp cloth is all that's required.



Alcoa Building, modern home office of the Aluminum Company of America, Pittsburgh, Pa., was designed by Architects Harrison and Abramovitz, New York, N. Y.



Carrara
...the quality structural glass

Additional information on Carrara is available from Pittsburgh Plate Glass Company, Room 6147, 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.

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a *Beautiful* buy....

. . . any way you look at it!

SURE, it's beautiful to look at . . . in grain and figure, in warm, light, *modern* color. Glamorous rotary-cut Gold Coast Cherry is the *new* beauty star in flush doors.

More good news! Gold Coast Cherry cuts finishing costs: its beautiful color makes stain unnecessary — its smooth, close texture requires no filler.

Price? *Actually lower than many domestic hardwoods!*

That's Mengel rotary-cut Gold Coast Cherry — eye-appeal, *buy*-appeal — any way you look at it.

See for yourself: order an inspection lot from your distributor. Why not phone or write him . . . *this very profitable minute?*

Door Department, THE MENGEL CO., *Louisville 1, Ky.*

Mengel Doors equal or exceed the requirements of Bureau of Standards specifications CS200-55



MENGEL *Flush* **DOORS**

Why REZNOR sells 1 out of every 2 Gas Unit Heaters

Reznor leads in QUALITY

One out of every 2! Such complete domination of a market shared by more than 100 producers can't be an accident. Reznor achieved this leadership by building a better unit heater. An alert, aggressive product development program keeps Reznor ahead of the field. And the highest standards of craftsmanship and materials insure to every Reznor user the full advantages of Reznor's "years-ahead" engineering.

Reznor offers the best PRICE

The best heater at the lowest price? No, it isn't possible. Prices on Reznor heaters are comparable to those of the best competitive units . . . higher than those of some inferior units. But the economies of mass production enable Reznor to build a better heater for the price. Wise buyers take advantage of this to get more heater value, dollar for dollar, from Reznor than any other manufacturer can afford to offer.

Reznor is first in KNOW-HOW

Gas unit heaters are a specialty, not just a side line, with Reznor. Every emphasis is given to the development of more efficient gas-fired space heaters for business and industry. This determination to do one thing well means that every possible improvement will be fully explored and exploited—never sidetracked for other projects or products.

And because Reznor sells more, many more, gas unit heaters than any other manufacturer, Reznor knows more about gas unit heating. If your Reznor representative or distributor doesn't have the answer you need, he can get it. Somebody somewhere in the Reznor organization will have the solution—proved by experience.

Reznor is tops in AVAILABILITY

Reznor has distributors in more than 300 cities. Most of them maintain complete warehouse stocks. Wherever your job is located, you can specify "Reznor" with complete assurance that the equipment you call for will be available where and when it's needed.

Wherever you are, if it's information you need, your Reznor distributor is as close as your telephone—for the price of a local call. If you don't find a Reznor listing under "Heaters-Unit" in the classified pages of your telephone directory, please let us know. We'll give you the name and address of your nearest representative and distributor.

There is no "equivalent" for Reznor Gas Unit Heaters!

REZNOR
THE WORLD'S LARGEST-SELLING GAS UNIT HEATERS
REZNOR MANUFACTURING COMPANY
62 Union St., Mercer, Pa.

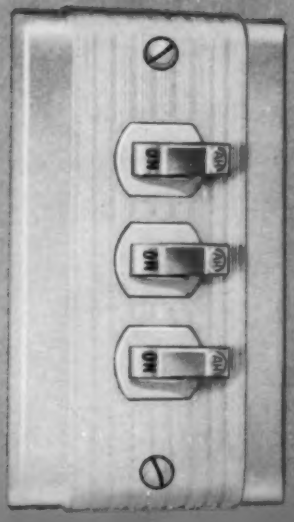
FOR THOSE WHO SPECIFY QUIET *and* QUALITY





1891 Type

LIFETIME *Quiette* SWITCH





QST-1 Type

INTERCHANGEABLE *Quiette* SWITCH

ALL TYPES NOW AVAILABLE WITH SCREW OR SCREWLESS WIRE-LOCK TERMINALS

A COMPLETE LINE OF ARROW AH HART *Quiette* LIGHT SWITCHES

In palace or project, the demand is for quality light switches that quietly go about the job of operating both incandescent or fluorescent lights and appliances through smooth mechanical action. The complete line of safe, dependable Arrow-Hart Specification Grade QUIETTE Light Switches fulfills that popular demand.

LIFETIME 1891 Type:
Ratings: 15 amp — 120-277 volt ac only; 20 amp — 120-277 volt ac only. With either Screw Terminals or Screwless Wire-Lock Terminals.

INTERCHANGEABLE QST-1 Type:
Ratings: 15 amp — 120-277 volt ac only; 20 amp (with screws only) — 120-277 volt ac only. S.P. and 3-way screwless switches are standard with line shunts.

Both available in single and double pole; 3- and 4-way; Brown or Ivorylite; listed as standard by Underwriters' Laboratories.

ARROW AH HART

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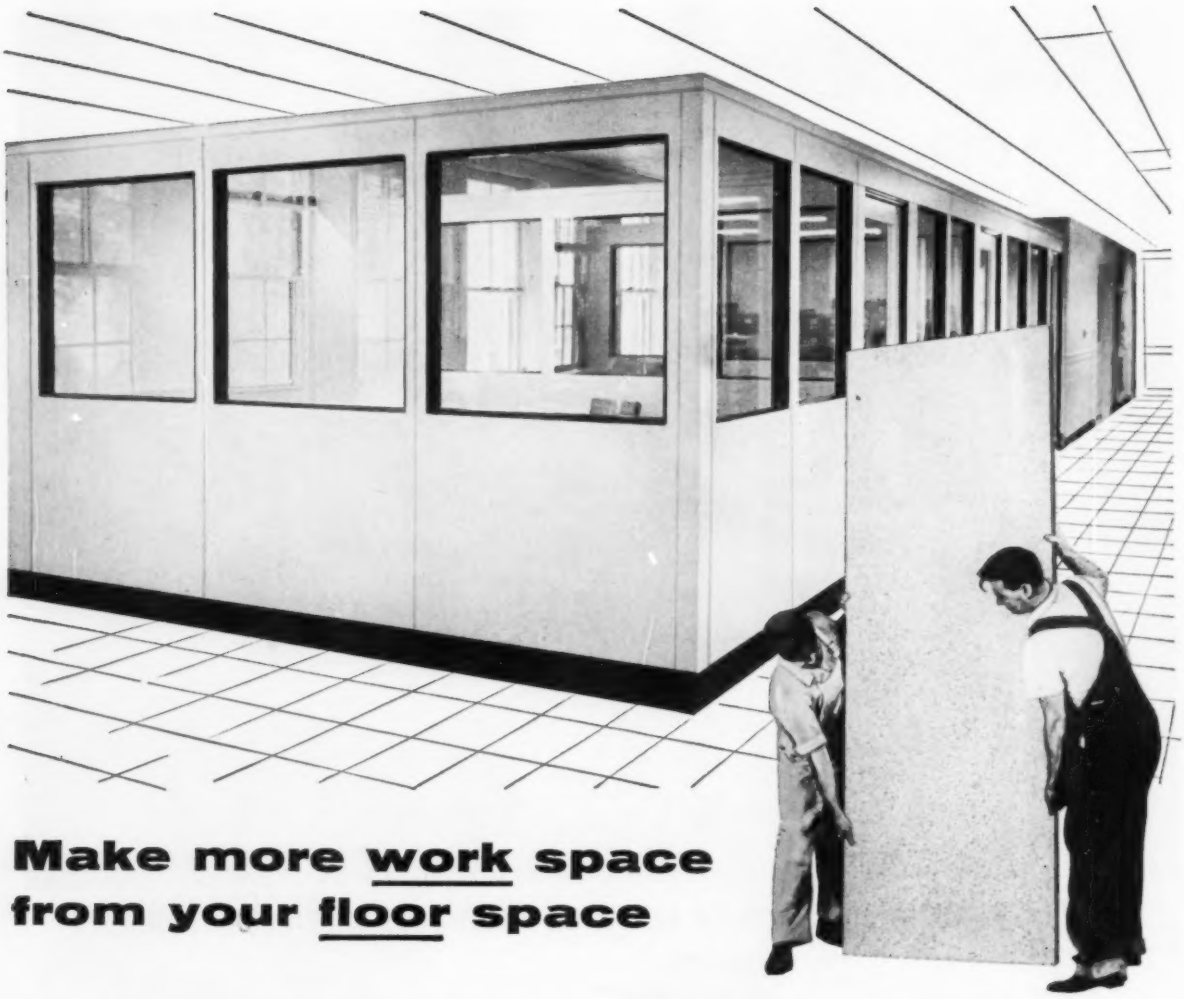
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ENCLOSED SWITCHES • APPLIANCE SWITCHES

WIRING DEVICE DIVISION AR
THE ARROW-HART & HEGEMAN ELECTRIC CO.
103 HAWTHORN STREET, HARTFORD 6, CONN.

Please send my copy of "New Quiette Switches" folder (Form WD-ST-75)



NAME_____
POSITION_____
COMPANY_____
CO. ADDRESS_____
CITY_____ ZONE___ STATE____



Make more work space from your floor space

J-M Class A Asbestos Walls are movable . . . save space and make space . . . are noncombustible, moderately priced . . . come in pleasing colors

New Johns-Manville Class A Movable Walls offer you advantages never before combined in an asbestos movable wall. They are modestly priced. They are noncombustible. They have a textured, stipple finish in restful colors. They reduce maintenance and relocation costs to a new low.

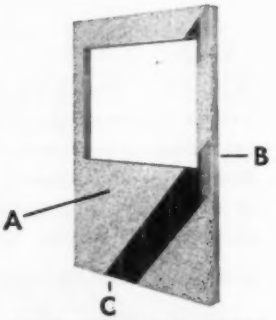
The finish of Johns-Manville Class A Movable Walls is a tough, hard film much thicker than on the usual movable partition. It is mar- and scratch-resistant . . . rejects stain and soil . . . can be easily washed and even scrubbed, if necessary. If damaged, it can be touched up inexpensively to look like new . . . and, unlike other types of factory-finished partitions, can be repainted with ordinary paint.

Undivided responsibility for a complete job

These flush or glazed partitions are erected as well as furnished by the Johns-Manville Construction Department complete with doors, door hardware, glass and trim.

• • •

For details about J-M Class A Asbestos Walls, consult your Sweet's Architectural File, or write Johns-Manville, Box 158, Department AR, New York 16, New York. In Canada, write 565 Lakeshore Road East, Port Credit, Ontario.



A Noncombustible asbestos-cement surfaces

B Generous reinforcing for added strength

C Noncombustible all-mineral insulating core

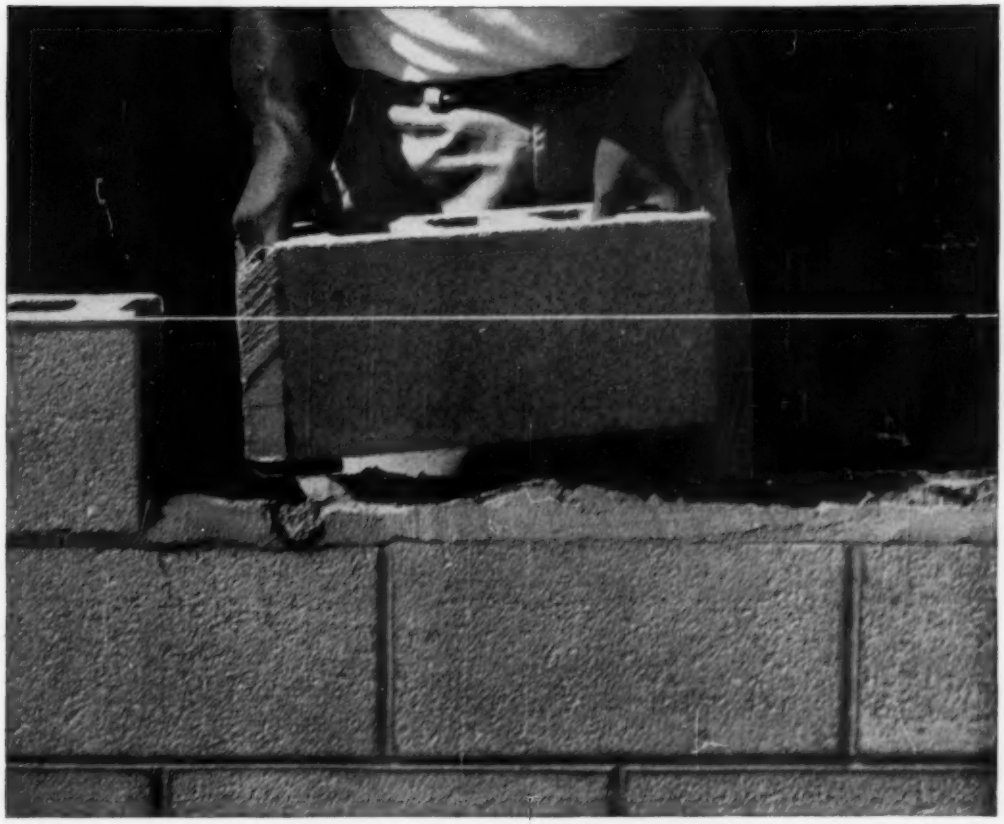
See "MEET THE PRESS" on NBC-TV, sponsored on alternate Sundays by Johns-Manville

JOHNS-MANVILLE PRODUCTS

Johns-Manville

BRIXMENT

Better Mortar for Blocks



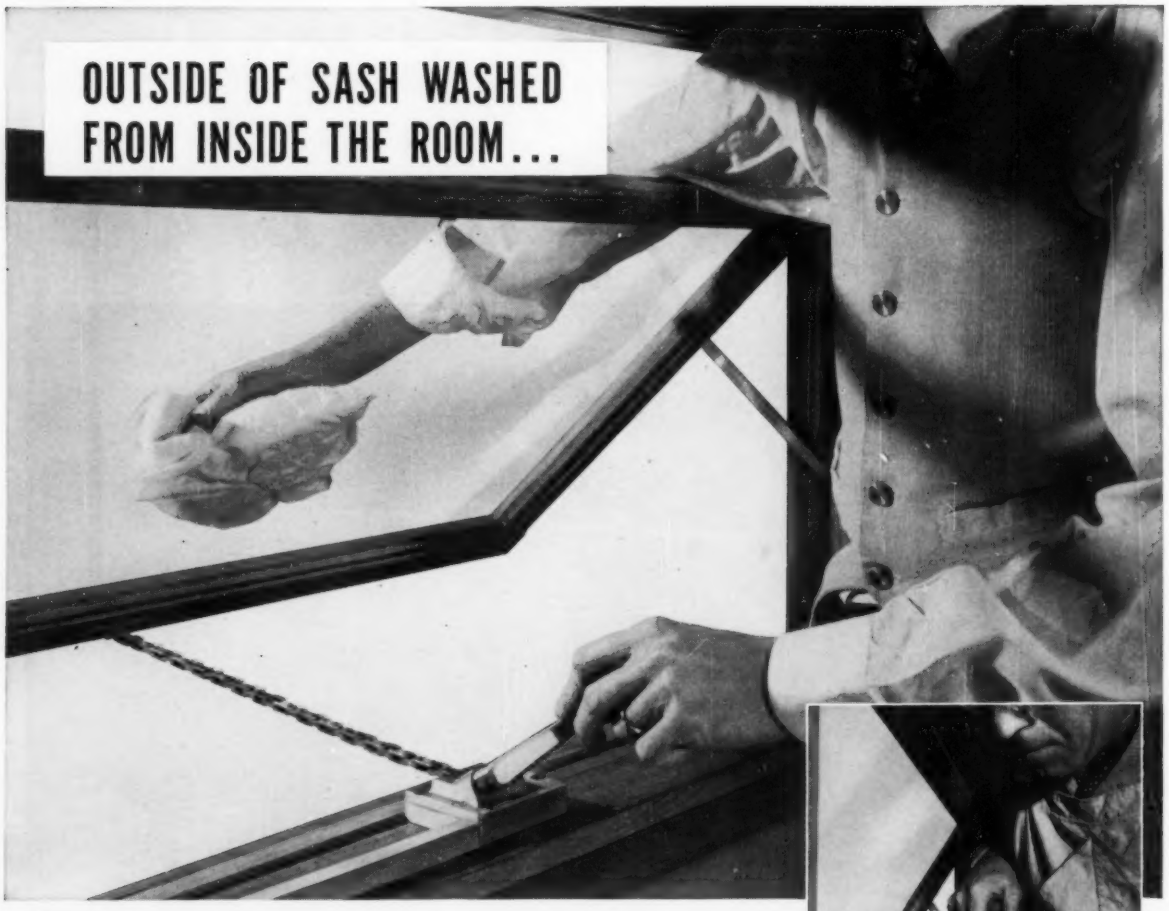
BETTER PLASTICITY

To build the best possible concrete-block walls, the bricklayer must use plastic mortar. The mortar must be plastic enough to stick to the long head joint. It must not drop off the edges of the block when the block is swung up, and lowered into place. It must remain plastic long enough to enable the bricklayer to tap the block down to the line, easily and accurately.

Brixment mortar provides this necessary plasticity. Moreover, it stays soft and plastic long enough to let the bricklayer level, plumb and straighten the unit and adjust it to its final position in the wall before the mortar stiffens.



Louisville Cement Company . . . Louisville 2, Kentucky



WITH NEW GETTY OPERATOR AND HINGE FOR POPULAR AWNING-TYPE WINDOWS

Easier window cleaning is but one of the advantages you can offer with this new No. 4711 Getty Operator and Hinge Set.

This Getty Operator works on a new and unique principle. It has a special kind of chain that becomes fully rigid when extended in opening an awning-type window. The operator holds the window firmly in any open position. It *closes and locks* the window securely without disturbing the screen—and without the separate lock many other operators require.

The hinge drops the sash from the frame, so that the outside of the window can be easily cleaned from inside the room. And both operator and hinge can be quickly and easily installed. There's no complicated hardware to fuss with or get out of order.

Specify Getty No. 4711 Sets for windows from 14 to 30 in. high and up to a maximum width of 48 in. Set #1 is for windows 14-17⅞ in. high; Set #2 for windows 18-23⅜ in. high; Set #3 for windows 23½-30 in. high. For complete information, including specification data, see your hardware consultant or write us direct now.



New Getty Operator and Hinge Set is easy to install. There's no complicated hardware.



Special Getty chain becomes fully rigid when extended—locks window in any position.

See the No. 4711 Getty Chain Operator for awning-type windows in operation at the Getty Booth, No. 776, at the Coliseum—NAHB Show, Chicago.

H. S. GETTY & CO., INC., 3348 NORTH 10TH STREET • PHILADELPHIA 40, PA.

Canadian representative: A. N. Ormsby Co., 23 Scott St., Toronto

Among progressive school planners

The trend in gymstands is WAYNE

Today's modern school planners recognize the value of consulting Wayne early . . . at the planning stages of new gymnasium building. They like the sound counsel and professional seating guidance that helps them plan and build more effective, efficient gymnasiums of tomorrow.

They also like the smooth, smart, modern appearance of Wayne seating that blends so beautifully into today's functional gymnasiums. They're sold on Wayne's famous engineering advances . . . closed riser construction . . . the exclusive alignment—frame assembly that permits smooth, easy, straight-line opening and closing. And, they take deep pride in the richness of the carefully selected and beautifully finished Wayne woodwork.

The trend in the nation's fine schools is definitely Wayne!

HERE'S HELP FOR GYMNASIUM PLANNERS

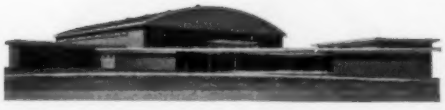
If you're planning a new Gym, request Wayne's Catalog R-55, it's full of helpful data on gymnasium seating. WRITE DIRECT to Wayne Iron Works, 148 N. Pembroke Avenue, Wayne, Pa.





WAYNE TWO-LEVEL SEATING AT CLAYTON, MISSOURI

Clayton High School
Architect: William B. Ittner
St. Louis, Mo.



WAYNE AT ALBANY, GEORGIA

Albany State College
Architects: Albany Architects and Engineers
Albany, Georgia



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Douglas Fir • West Coast Hemlock • Western Red Cedar • Sitka Spruce

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WEST COAST LUMBERMEN'S ASSOCIATION
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FOR NEW YORK'S COLISEUM...

it's aluminum windows by GENERAL BRONZE

A new landmark on New York City's famous skyline is rapidly being completed at Columbus Circle and 59th Street. It's the new Coliseum, where national trade expositions, conventions and athletic contests of all types will soon attract millions of visitors every year. As a part of this majestic new structure the architects have included an ultra-modern multi-story office building.

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As you plan and design new structures—regardless of size or purpose—we suggest that you call in the General Bronze representative. He can be of considerable assistance in helping you solve those problems that pertain to windows, spandrels, curtain walls and architectural metal work. Our 45 years of experience and leadership is at your service. Our catalogs are filed in Sweet's.

QUALITY APPROVED

NEW YORK COLISEUM, New York, N. Y.
Architects: Leon & Lionel Levy
Contractors: Walsh, Fuller, Slattery

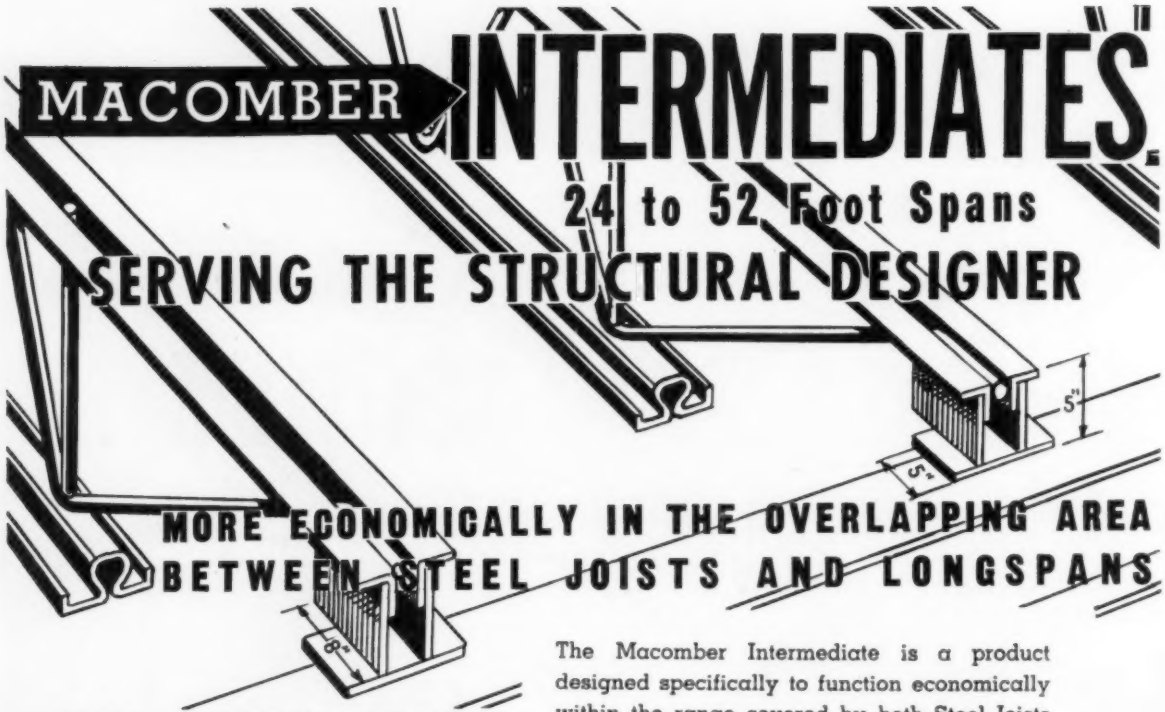
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24 to 52 Foot Spans

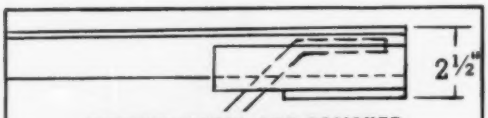
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MORE ECONOMICALLY IN THE OVERLAPPING AREA BETWEEN STEEL JOISTS AND LONGSPANS

NOT A STEEL JOIST
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INTERMEDIATES ARE DESIGNED WITH 2½" DEEP ENDS WHEN USED WITH STEEL JOISTS.

The Macomber Intermediate is a product designed specifically to function economically within the range covered by both Steel Joists and Longspans.

The greatest design efficiency of the Intermediate is apparent in the area of diminishing effectiveness for Steel Joists and Longspans.

In this overlapping area, you have a complete range of Intermediate sizes and spans for the efficient and economical framing of the majority of commercial and industrial layouts.

Keep this Macomber product in mind when you have an area within the 24 to 52 foot range.

Introduced in 1949—INTERMEDIATES had an immediate acceptance. Since then they have gone into every type of industrial and commercial structure from coast to coast.

The bulletin shown opposite with sizes and Load Table is a MUST for every designer's desk drawer. . . . Just write INTERMEDIATE BULLETIN across your letterhead.

STANDARDIZED STEEL BUILDING PRODUCTS

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• ENGINEERING • FABRICATING AND ERECTING •

NAILABLE STEEL JOISTS
•
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METAL DECK
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General Institutional Doors

adapt readily to functional design

In many schools across the nation General Institutional Doors are proving that they are the perfect answer when versatility and economy are first considerations. They are designed to combine the low cost of hollow core construction with extra heavy stiles, rails and center rail. Extra heavy frame construction accommodates virtually all types of institutional hardware.

Cylindrical fibre core construction as shown below results in more bearing area and less unsupported exterior surface. It also permits cutting into at any point without injuring or breaking more than one ring which makes possible an almost limitless variety of light and louvre openings.

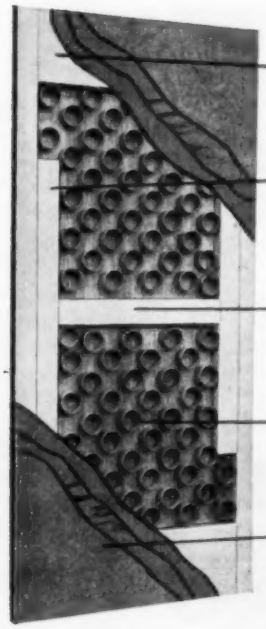
General offers a complete line of standard hollow, institutional hollow and solid core doors in a variety of wood faces. Specify General Doors on your next job and be sure!

OVER 50 YEARS IN HARDWOOD PLYWOOD



N. W. Junior High School, Davenport, Iowa

ARCHITECT: Louis C. Kingscott & Associates, Architects & Engineers, Kalamazoo, Michigan and Davenport, Iowa.



10-INCH RAILS TOP AND BOTTOM

Ample anchoring space for heavy door closers, kick plates and other top and bottom hardware. Added stability plus reversibility —eliminates chances of hanging error.

TWO 40-INCH LOCK BLOCKS

Three-inch-wide lock blocks, combined with three-inch stiles, provide six inches of width over forty inches of length on both sides of door frame—ample lock block area and no chance of hanging error.

EXTRA CENTER CROSS RAIL

Centered, three-inch cross rail on 6′-8″ door and six-inch rail on 7′ door allow for easy installation of panic bars and other special hardware.

COLUMN-CORE CONSTRUCTION

Cylindrical fibre columns — strongest light weight structural form known—are used to insure combined lightness and strength.

3-PLY BALANCED PANELS

Balanced panels assure utmost rigidity and resistance to warpage. Each panel, on the back, carries a complete film of resin which prevents moisture penetration and maintains balance after doors are finished.

GENERAL PLYWOOD
CORPORATION
LOUISVILLE, KENTUCKY



The home of Edgar J. Kaufmann, Falling Water, Bear Run, Pennsylvania (used by permission). Photograph by Hedrich-Blessing.

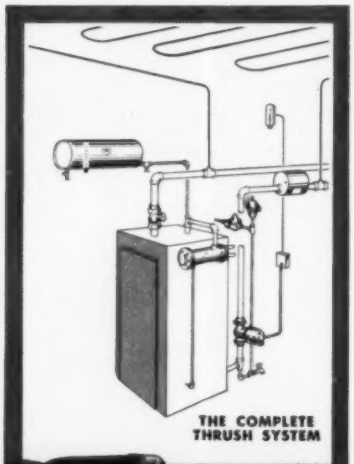
The famous "Falling Water" house, world's most publicized residence, designed by Frank Lloyd Wright, is equipped with

THRUSH *Hot Water Heat*

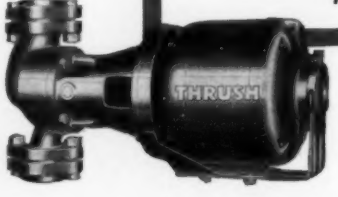
This beautiful home, one of his outstanding creations, was featured in the recent special Frank Lloyd Wright issue of HOUSE BEAUTIFUL. Naturally we are proud of the fact that this famous home is heated with Thrush Forced Circulating Hot Water Heat and that Mr. Wright has frequently specified Thrush system in other homes of his design.

Whether you are planning or building beautiful homes like this or smaller units for individuals or housing developments, you'll find Thrush Radiant Heating a real sales advantage, appreciated by discriminating home builders. It is completely automatic and provides constant radiant warmth without any noticeable temperature variation.

Pipe coils hidden in the ceiling or the floor or radiant baseboards use no floor space. The same heating boiler provides plenty of hot water for kitchen, laundry and bath the whole year through. Installation cost is low, maintenance is negligible, while fuel consumption and operating costs are amazingly inexpensive.



THE COMPLETE THRUSH SYSTEM

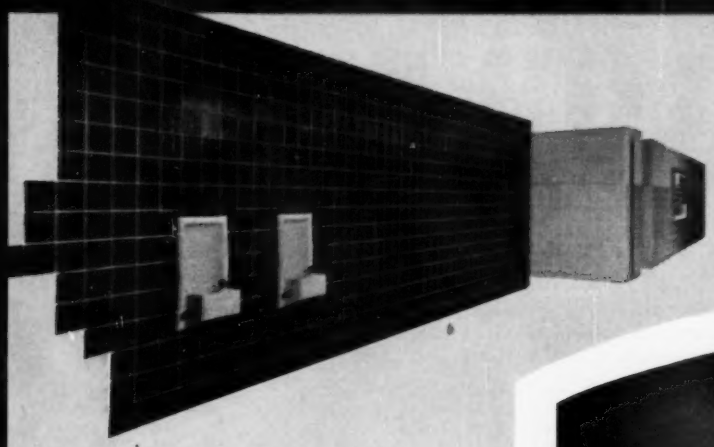


THRUSH WATER CIRCULATOR

See our catalog in Sweet's or write Dept. J-1 for more information.

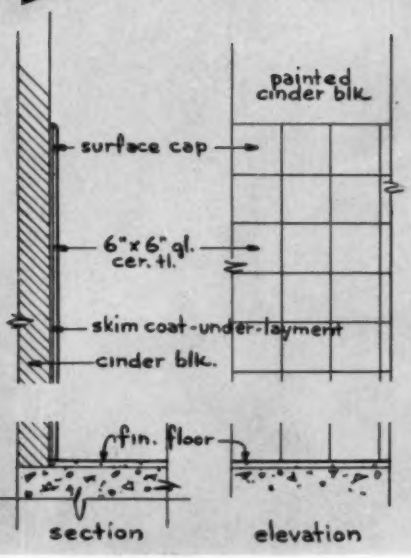
H. A. THRUSH & COMPANY
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ROMANY *Real Clay* TILES



SPECIFICATION

This project is one where the masonry walls were specified to be as true and plumb as possible, but in case it was found necessary, a skim coat of cement or underlayment was to be applied by or under the direction of the Tile Contractor to receive tile. It was thought best to apply this skim coat, and underlayment was used to the height of the wainscot or wall to be tiled. Tile was applied after floor finish was in place, with no cove — except where floor was tiled.





for SCHOOL

CLASSROOMS CORRIDORS
REST ROOMS CAFETERIAS
GYMNASIUMS AUDITORIUMS
STAIRWAYS AND OTHER AREAS

Illustrated is a corridor and reception room in the Tholl Street School, Norfolk, Virginia, for which Oliver & Smith, A.I.A., were the Architects. The Tile Contractor was Ajax Tile & Marble Co. of Norfolk. The wall tile in the corridor is ROMANY Nos. 741 Citrus Yellow and 787 Brown and in the reception room, ROMANY No. 741 Citrus Yellow. ROMANY Real Clay Tile possesses characteristics of exceptional value in school installation and maintenance, resulting from our long experience in supplying tile best adapted to school needs.

Aside from attractive appearance and that all ROMANY Tile is stain proof, acid proof, fade proof and fire proof, there is the essential fact that ROMANY Tile will withstand abuses from scuffing and other wear incidental to school life. This is achieved by ROMANY Buff Body Tile with its rugged clay body and hard glazed surface.

Where exceptional wear and abuse is anticipated, this condition is fully met by ROMANY Red Body Tile, which is far tougher than competitive products.

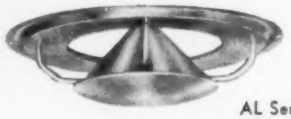
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UNITED STATES CERAMIC TILE COMPANY

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Member: Tile Council of America and Producers' Council, Inc.

217-H FOURTH ST., N.E., CANTON 2, OHIO



AL Series Baffle
—low ceiling

BL Series Baffle
—normal height ceiling





SR Series Baffle
—high ceiling

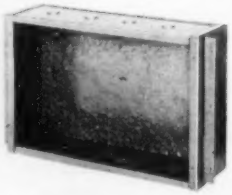
CP Series Enclosures
—new construction



XCP Series Enclosures
—existing construction



P Series
Enclosures
(box type)



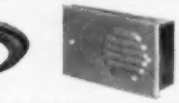
Grilles



Accessories



Intercom Equipment

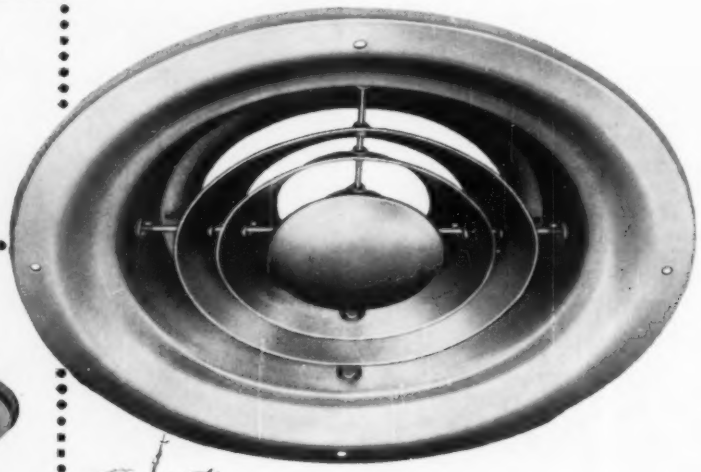


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LOWELL

THE SOUND CHOICE IN SOUND DISTRIBUTION

Architects and accoustical engineers agree on Lowell sound distribution equipment. That's why you'll find the proved-in-performance Lowell line in large and small installations everywhere.





Lowell STL "St. Louis" Ceiling Baffle, for "ear level" sound in any installation. Smart, modern design suits today's decor. "Floating" conical diffuser is mounted on soft rubber grommets . . . assures 360° sound dispersion. 18 gauge aluminum—models for 6″ to 15″ speakers.

Lowell protective speaker enclosures positively protect against rodents, dust, fire, falling mortar. Rust-proofed heavy-gauge spot-welded steel. Larger models undercoated to prevent resonance. Enclosures for 6″ to 15″ speakers.

ONE source for more than 100 models . . . wall and ceiling baffles! protective enclosures, grilles, mounting accessories and intercom equipment.

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see our catalog in S or write for copy

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Lowell MANUFACTURING CO.

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A lifetime of protection in 6 captivating colors

The K&M roofing shingles illustrated here are Lindenwold. Other "Dualay" colors are Antique Red, Peacock Blue, Green Pastel, Red Pastel, and Rustic Brown.

K&M "DUALAY" ASBESTOS ROOFING SHINGLES !



You'll find it easy to plan extra beauty into any home with "Dualay" asbestos shingles. There's a choice of six smart colors to work with. These remarkably durable shingles provide lifetime roofing protection, and assure freedom from costly maintenance over the years.

One shingle—two effects. "Dualay" shingles can be applied to produce either a straight butt or thatched butt. Because of their large unit size and self-aligning design, they can be applied quickly and easily.

Get all the facts. You'll find details on K&M "Dualay" shingles in your *Sweet's Architectural File*. Or write directly to us for a descriptive color folder. *Literature on K&M siding shingles also is available.*

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA

K&M best in asbestos®



...why you've got

What will happen when Mrs. New Homeowner plugs in all these electrical appliances? Will she suddenly find her modern home *not* as up to date as she thought?

Throughout the country, millions of homeowners are discovering an important fact—*home wiring must be able to handle the multitude of appliances they use today.* What's more, provisions must be made for the many *more* appliances they plan to install tomorrow!

No doubt about it – the *wiring* in a home should be planned as carefully as the rest of the house! A 3-wire service entrance of *at least* 100 amperes capacity, wires large enough to carry full, healthy loads of electricity, plenty of circuits and an abundance of outlets – all these are vital

REASONS



to plan for power!

to the homes of today.

Plan *your* homes with power in mind – with emphasis on sound, adequate wiring all through the house. You'll make your homes easier to sell; you'll add to your reputation as a designer of *quality* homes!

Free Home Wiring Wall Chart! Send today for Kennecott's handy wall chart showing typical home circuit loads. Use it as a check list when planning home electrical systems. For your copy, write Kennecott Copper Corporation, Dept. A-16, 161 East 42nd St., New York 17, N. Y.

Kennecott Copper Corporation

Fabricating Subsidiaries: CHASE BRASS & COPPER CO. • KENNECOTT WIRE & CABLE CO.

Seaporclad Porcelain Curtain Walls

make buildings glow with ageless color

These insulated porcelain panels of sandwich construction combine the use of various cores laminated under high pressure between heated platens to skins of diversified metals.

Seaporclad* can be adapted to meet conditions for any type of construction. On the First Security Bank Building, a wire mesh, fastened to the insides of the grids, was sprayed on the job with lightweight cementitious plaster in thickness sufficient to insure proper insulation and fire-proofing factors.

Fabricated in a variety of textures, in a wide range of colors and shades, Seaporclad will not fade, tarnish, craze or peel. Also, no repaint or other serious maintenance costs are involved.

FIRST SECURITY BANK BLDG., Salt Lake City, Utah

Outlining this structure are 44,000 sq. ft. of ribbed porcelain framing and wall surfaces, bolted into a steel grid framework forming a completely assembled unit 4 ft. x 12 ft. placed in position and fastened to main structural steel by angle clips. The spandrels (12,500 sq. ft.) 4 ft. x 4 ft. are recessed with 8 in. x 8 in. squares in "waffle" effect.

Associate Architects: Bank Building and Equipment Corporation of America, St. Louis; W. Sarmiento, St. Louis; Harry S. Mayer, San Francisco; Slack W. Winburn, Salt Lake City.





Architects: Joseph G. Morgan & Edwin Weihe, Washington, D. C.

MARRIOTT'S MOTOR HOTEL, facing Pentagon Bldg., Alexandria, Va.

Seaporclad colorful panels . . . laminated-insulated . . . will cover entire exterior of this 348 room sound-proof $4,000,000 motel. These panels were selected for sound-resisting and insulating values . . . in great part to eliminate the noise of planes constantly flying over this area.

Architect: Vincent G. Kling, A.I.A., Philadelphia, Pa.

POTTSTOWN HOSPITAL, Pottstown, Pa.

Seaporclad panels, of numerous sizes, consist of a porcelain enamel face with aluminum honeycomb core, with a flat sheet paint grip steel back. A feature of this building is the wide use of sun shades made of Seaporclad panels of porcelain enamel facing front and back.

Write for our newest catalog and construction details.

Address Dept. 21

SEE OUR CATALOG IN SWEET'S

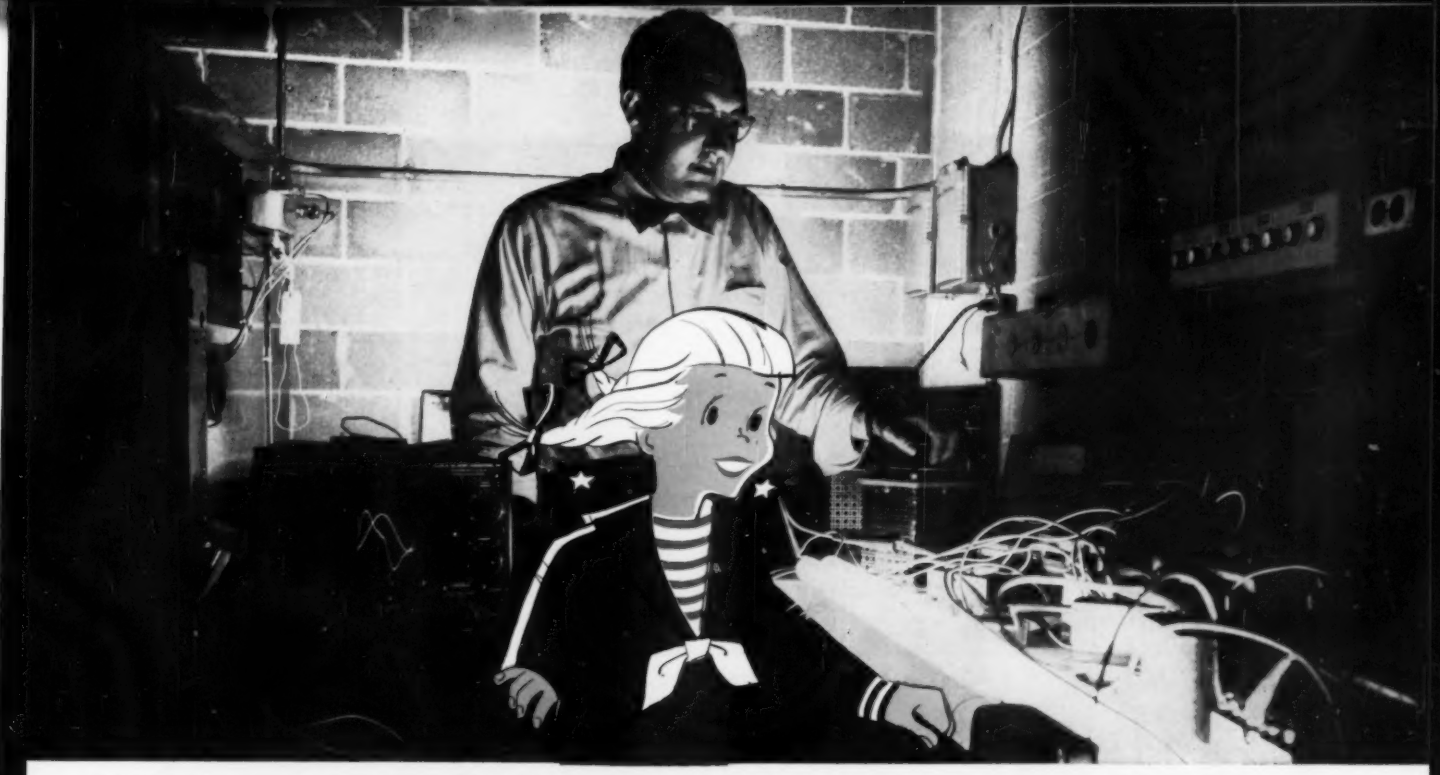
for some job somewhere you can use...

Seaporcel

ARCHITECTURAL PORCELAIN

SEAPORCEL METALS, INC., 2800 Borden Avenue, Long Island City 1, New York — Member: Porcelain Enamel Institute, A.F. of L. Metal Fabricating & Enameling Plant — In Canada: Seaporcel is manufactured by General Steel Wares, Ltd., London and Toronto, Ontario. Complete erection and engineering departments.

*Reg. U.S. Pat. Off.



This G-E development engineer is testing a ballast design for a new fluorescent application. He's a member of the largest ballast development group in the industry. The fundamental research which they perform is one important reason why G.E. is the leading supplier of fluorescent ballasts.

Flora* shows you how . . .

General Electric Ballast Design Leadership Helps You Save Lighting Dollars

General Electric's design leadership has contributed greatly to the vast fund of knowledge now available and being used by the entire ballast industry.

A recognized pioneer in ballast design, G.E. has led in these important developments: Tulamp lead-lag, certified series 96T12, trigger start, rapid start, clamped core, plastic sign, and dimming ballasts. G.E. emphasizes product leadership to provide the best ballast value to the user. We have never resorted to the temptation of lowering product quality to gain competitive advantage. Instead, we furnish only the best ballasts to assure economical fluorescent lighting. We're convinced there is no substitute for satisfactory performance.

To be sure of top quality ballasts with the latest design developments, look to the leader . . . General Electric!

The next time you specify equipment for a fluorescent lighting installation, make sure you get the best . . . specify General Electric ballasts.

A G-E ballast tag or sticker on your fixture is proof that it's equipped with the best in ballast value. It's the only way to be certain. For further information on G-E ballasts, write Section 401-15, General Electric Co., Schenectady 5, New York.

*Miss Fluorescent Ballast, G. E.'s Ballast Mascot

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USER SATISFACTION gets foremost consideration by G-E ballast development engineers. Here a ballast is being checked to make sure it will provide optimum light output and lamp life.

Five more reasons why

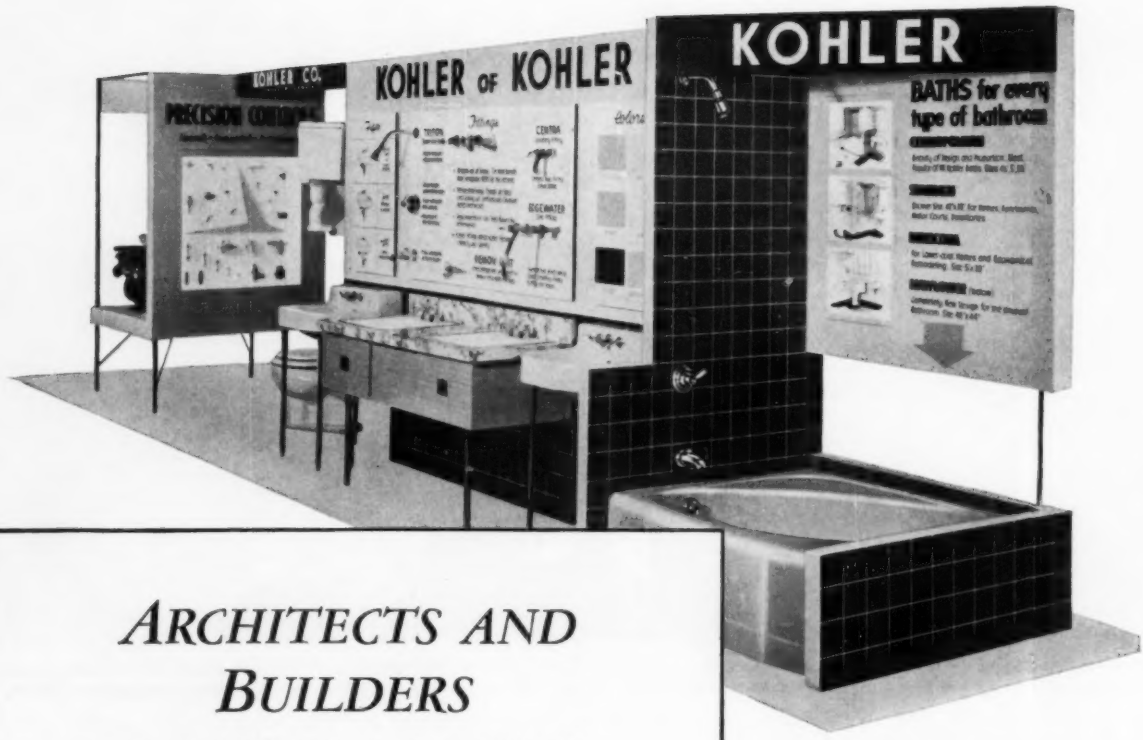
GENERAL ELECTRIC IS YOUR BEST BALLAST VALUE

- **EXCLUSIVE SOUND RATING SYSTEM**
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Progress Is Our Most Important Product

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ARCHITECTS AND BUILDERS

are cordially invited to visit the

KOHLER EXHIBIT

at the National Housing Center,
Washington, D.C.

The Kohler exhibit on the second floor of the National Housing Center displays a representative selection of Kohler plumbing fixtures and fittings, together with other Kohler products.

Kohler Co. welcomes the opportunity, afforded by this new project, to provide builders and architects with information about its products and their functions, as well as evidence about Kohler quality. We believe you will find it interesting and instructive to stop at the Kohler exhibit when visiting this "show case" of American home building.

Be sure to visit our exhibit at the N.A.H.B. Convention in the Conrad Hilton Hotel—January 22-26.



Kohler Electric Plants, shown in the exhibit, provide a convenient, portable, cost-saving source of electricity for power tools and lighting used in home-building and other construction. Sizes from 500 watts to 35 KW include stand-by models for protection when central station power fails.

Kohler Co., Kohler, Wisconsin • Established 1873

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PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS • AIR-COOLED ENGINES • PRECISION CONTROLS

Another REINFORCED CONCRETE BUILDING WITH...

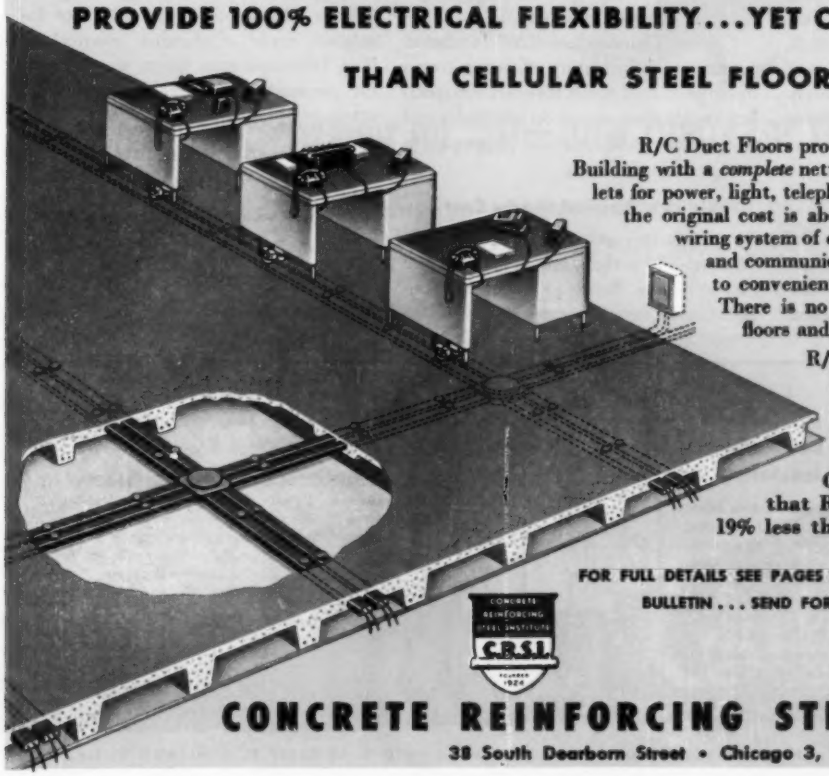
low cost R/C DUCT FLOORS

(ELECTRIFIED CONCRETE JOIST FLOORS)



THE EDITORS BUILDING, WASHINGTON, D. C.
Leon Chatelain, Jr., Architect
Beall & LeMay, Structural Engineers
John McShain, Inc., General Contractors

PROVIDE 100% ELECTRICAL FLEXIBILITY...YET COST MUCH LESS THAN CELLULAR STEEL FLOORS



R/C Duct Floors provide tenants of the new Editors Building with a *complete* network of underfloor electrical outlets for power, light, telephone, and intercom systems. Yet the original cost is about the same as a conventional wiring system of equal capacity. Outlets for power and communications systems can be connected to convenient risers in a matter of minutes. There is no ripping up or drilling through floors and ducts.

R/C Duct Floors consist of *standard* steel electrical distribution ducts set in the *structural* slab of reinforced concrete joist floors . . . *no expensive fill or topping is needed.*

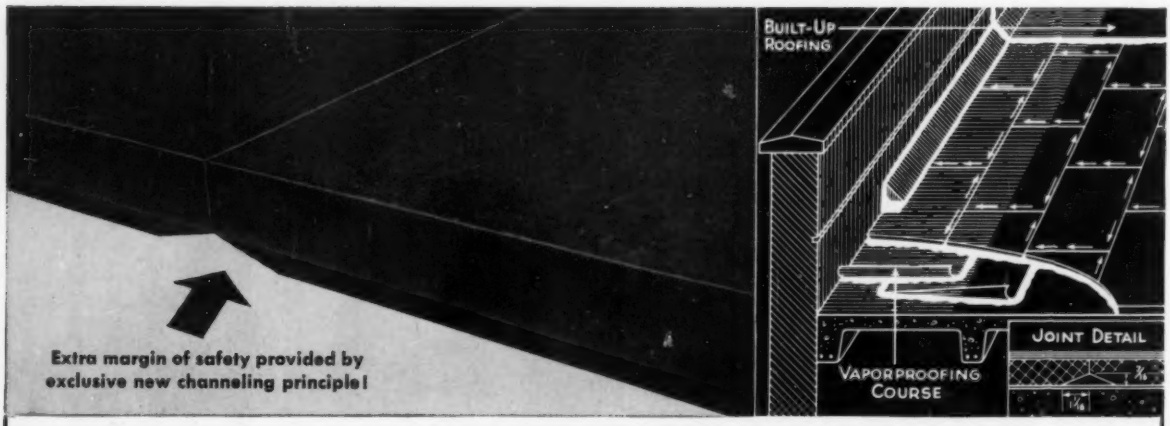
Cost comparisons showed that R/C Duct Floors cost about 19% less than cellular steel floors!

FOR FULL DETAILS SEE PAGES 10-11 IN NEW 16-PAGE BULLETIN . . . SEND FOR YOUR COPY!



CONCRETE REINFORCING STEEL INSTITUTE
38 South Dearborn Street • Chicago 3, Illinois

New safeguard against blistering, separation of felt and insulation!



Celotex CHANNEL-SEAL
ROOF INSULATION

A unique network of interconnecting channels, formed by Celotex Channel-Seal Roof Insulation units laid on the deck, permits free air circulation beneath roof surface. Along these "escape routes", high-pressure air pockets are constantly being relieved. Result: *Cost-saving protection no ordinary roof insulation can offer!*

"Safety Release" In Action

Each unit of Channel-Seal has bevels 7/16" high, 1 1/16" wide on all deck-side edges. Bevels produce a system of broad channels that reduce and equalize pressure pockets. This minimizes risk of blistering or separation of felt and insulation.

Celotex Channel-Seal Roof Insulation provides high insulating efficiency, comes in range of thicknesses for every job specification. Asphalt-coated on both sides and all edges for extra moisture protection in storage and on-the-job.

Quickly Applied at Low Cost

Low in both initial and applied cost, Channel-Seal is rigid, tough, yet light and easy to handle. Resists job handling damage. Coated surface assures positive bond to both roof deck and roofing felt. Specify Celotex Channel-Seal, the only roof insulation made of durable, interlocking long Louisiana cane fibers, protected by the patented Ferox® Process against dry rot and termite attack.

For a better roof...
specify genuine

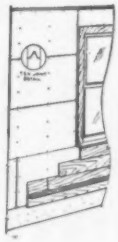
CELOTEX
REG. U. S. PAT. OFF.
ROOF INSULATION

The Celotex Corporation, 120 S. LaSalle St., Chicago 3,

These Celotex Insulation Products Can Simplify, Improve, Cut Costs on Your Construction Jobs!

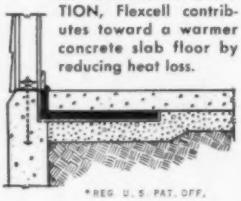
CELOTEX
Double-Waterproofed Insulating Sheathing

Goes up faster, cuts labor costs up to 30%! Insulates, weatherproofs, as it builds. No corner bracing needed; has about 30% greater strength than ordinary sheathing with let-in bracing. Excellent base for wood shingles. *Double-waterproofed* to seal out damaging, job-delaying moisture!



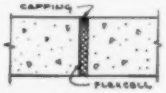
FLEXCELL*
Bituminous Impregnated Cane Fiber Board

As PERIMETER INSULATION, Flexcell contributes toward a warmer concrete slab floor by reducing heat loss.



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As EXPANSION JOINT FILLER for driveways, walks, curbs and gutters, Flexcell expands and contracts with concrete slab—is not affected by temperature changes . . . does not extrude, is maintenance-free!



Write Now for full data on various types of job-proved Celotex Cane Fiber Insulation:

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1 x 4's—2 x 4's—4 x 4's
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Recessed incandescents from 60 watts to 1500 watts, and GrateLite* Ceilings, too... they're all in this brand-new big catalog.

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ANOTHER NEW IDEA...

ONE OF A SERIES OF IDEAS FOR YOUR FILES



WITH CORRUGATED ASBESTONE

Natural shadow lines of Corrugated Asbestone emphasize store-front beauty

Gold Bond CORRUGATED ASBESTONE "400" has a natural beauty that does several important jobs for store-fronts like the one above. The vertical shadow lines act as a distinctive background for setting off the raised letters of the store sign. These lines also contrast and blend with other building materials used in the store. There are hundreds of uses for CORRUGATED ASBESTONE as a store-front material. It has an attractive natural gray color but may be painted easily if other decorative schemes are required.

Gold Bond "400" is as economical as it is handsome. Its rugged rock-like texture resists all weather, fire, rot and corrosion. It never needs maintenance and lasts a building's lifetime. Big sheets go up fast, can be cut to meet any design plans.

How many uses can *you* think of for Gold Bond CORRUGATED ASBESTONE? Whether it's in remodeling or new construction, commercial or industrial, ASBESTONE creates striking good looks and permanence—means added strength and lower maintenance. Write for full details on this versatile, good-looking material. Address Dept. AR-16, National Gypsum Company, P. O. Box 5257-B, New Orleans 15, La.



Gold Bond Technical Bulletin No. 2032, and Gold Bond Asbestone Application Book give full specifications and uses of Gold Bond Corrugated Asbestone Products.

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. . . CORRUGATED ASBESTONE

How much hinge does a door need?



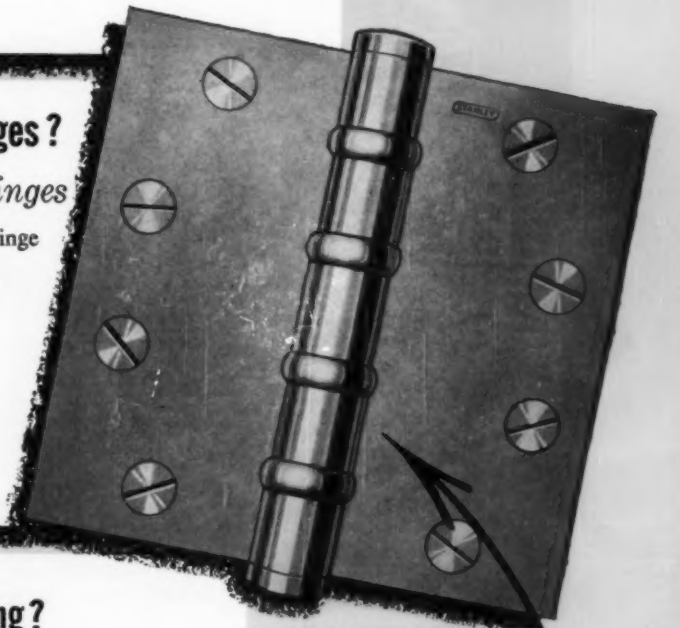
It depends upon door weight and frequency of use

When the door is heavier than the conventional type, or is equipped with a door closer, or is a high-frequency door (over 400 times daily) in the entrance to a department store, office building, theater, school, or other public building, it should hang on the finest heavy-duty hinges available.

What are the finest heavy-duty hinges?

Stanley full-jeweled® ball-bearing hinges

The Stanley full-jeweled ball-bearing hinge is the only hinge that takes care of *all* wear solely through ball bearings. It is made so that both lateral and vertical stress are transmitted to the bearings — there is no direct pressure on the pin. The cutaway view shows how the specially built-up raceways shoulder the load to the bearings.

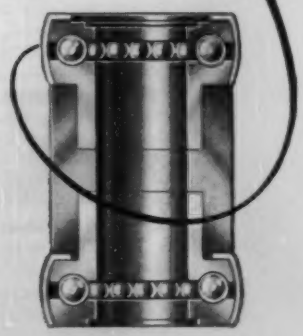


What does this mean to a building?

It means hinges that won't wear out

They are moisture proof, dust proof, and squeak proof. They last for the life of the building *and* they COST NO MORE. When you specify hinges, specify Stanley and where needed specify Stanley full-jeweled ball-bearing hinges.

REMEMBER  **THREE HINGES TO A DOOR**





Get your copy of the new folder that tells and shows all about this Hercules of hinges. Write Stanley at 161 Lake St., New Britain, Conn. It's free, of course.

STANLEY

At the Fairview Hospital, Cleveland, Ohio

THE ANSWER IS
BRYANT
WIRING DEVICES



ARCHITECT — Garfield, Harris, Robinson & Schafer, Cleveland, Ohio
MECHANICAL AND ELECTRICAL ENGINEERS — John Paul Jones, Cary & Miller, Cleveland, Ohio
GENERAL CONTRACTOR — George A. Fuller Company, New York, N. Y.
ELECTRICAL CONTRACTOR — Harrington Electric Company, Cleveland, Ohio

MODERN HOSPITAL FOR CLEVELAND — Careful planning, which is so necessary in present-day construction, is exemplified in the new Fairview Hospital in Cleveland, Ohio. Typical of the care that is taken in the selection of fine materials is the fact that Bryant Wiring Devices were specified throughout.

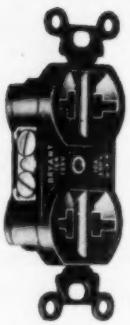
AND THERE WAS A VERY GOOD REASON FOR THIS CHOICE — For example, the *silent* operating characteristics of the 4701-I Mercury Switch were considered important in helping maintain the low noise level essential in any hospital. Another feature of this switch is the hermetically sealed-in pool of mercury which makes and breaks the circuit, so that there is no external arcing which can be dangerous in hospital environments.

NO. 4832 OUTLETS WERE SPECIFIED — because their sturdy, double-sided contact construction could be depended upon to provide low resistance connections for lamps and hospital equipment for many years.

A QUALITY DEVICE FOR EVERY TYPE INSTALLATION — The devices mentioned above are only two of a complete line of Bryant Wiring Devices. Whether for home, office or industry, specify Bryant Quality Wiring Devices for years of service and satisfaction.

Listed by Underwriters' Laboratories Inc.

THE BRYANT ELECTRIC COMPANY
Bridgeport 2, Connecticut • Chicago • Los Angeles



NO. 4832
Duplex Outlet
15 Amps 125 Volts
10 Amps 250 Volts



NO. 4701-I
10 Amps 125 Volts
5 Amps 250 Volts
Silent Mercury Switch
with Ivory Handle

BRYANT
SUPERIOR WIRING DEVICES

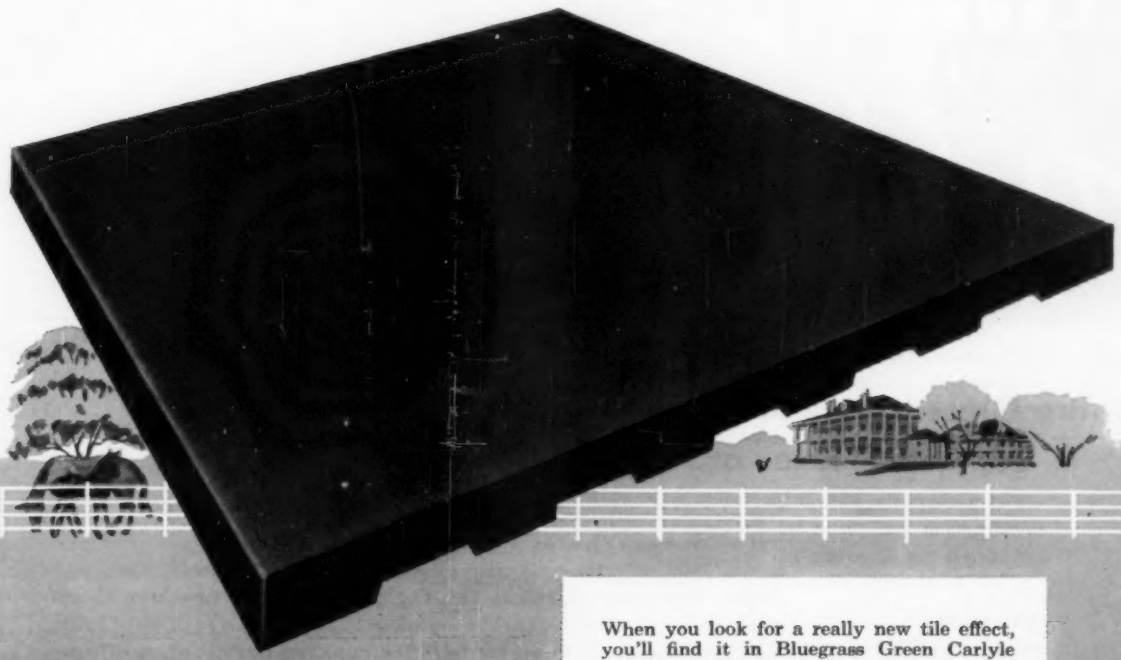
J-99945

Only Mosaic offers you *green* Carlyle Quarry tile . . . Bluegrass Green . . . a beauty in itself or combined with your choice of other Carlyle Quarry tile colors.

Now! Bluegrass Green Carlyle Quarry Tile

. . . the *New* color in Quarry tile!

This versatile new Bluegrass Green tile performs on the job as dependably as all Carlyle Quarries. Won't fade or wear under hard use. Vitreous. Requires an absolute minimum of maintenance. Sizes: 6″ x 6″, 6″ x 2¾″, 4″ x 4″ and 2¾″ x 2¾″. All sizes are ½″ thick. Limited selection of trim shapes. Installed cost somewhat higher than other Quarry colors.



When you look for a really new tile effect, you'll find it in Bluegrass Green Carlyle Quarry tile. It's a product of Mosaic. For your copy of the Carlyle Quarry Tile Catalog, write Dept. 30-30, The Mosaic Tile Company, Zanesville, Ohio.

Most colors and sizes of Carlyle Quarries are readily available. Ask your tile contractor or Mosaic representative for details.

Carlyle Quarry Tile . . . the only complete line of quarry tile

a product of

THE MOSAIC® TILE COMPANY

America's largest manufacturer of ceramic floor and wall tile

Member—Tile Council of America and The Producers' Council, Inc. Over 5000 Tile Contractors to serve you



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Western Electric Company and Pacific Telephone and Telegraph Company Building, San Leandro, California.
Harry A. Thomsen & Aleck L. Wilson, Architects • Swinerton & Walberg Co., Contractor • East Bay Glass Company, Glazier

Coolite Glass Keeps Production in Better Sight in New California Supplies Center of Pacific Telephone and Western Electric

Mississippi's Coolite wire glass, used in this modern plant, keeps work areas and offices literally loaded with daylight . . . provides plenty of conditioned, natural illumination for easier seeing, greater comfort and added safety. For Coolite, Heat Absorbing, Glare Reducing glass permits use of vast areas of glass without distracting, discomforting glare . . . absorbs up to 50% of solar heat rays to eliminate unwanted heat. The attractive Luxlite pattern diffuses softened daylight deep into interiors, avoids harsh shadows and sharp contrasts. Workers see better, feel better, work better in Coolite-conditioned daylighting. Brighten your production picture with Coolite. When you build or remodel your facilities, consider Coolite. Find out how Coolite, Heat Absorbing, Glare Reducing glass can keep costs down, boost employee efficiency, lighten load on humidification and air conditioning equipment.



Write for free catalog.
Address Dept. 7.

Translucent, light diffusing glass by Mississippi is available in a wide variety of patterns and surface finishes, wired and unwired, all "visioneered" to meet any daylighting requirement. Available through leading distributors of quality glass everywhere.

Sweet's

MISSISSIPPI Glass COMPANY

88 ANGELICA ST. SAINT LOUIS 7, MO.
NEW YORK • CHICAGO FULLERTON, CALIFORNIA

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS





Delco-matic makes the garage door as mechanically up-to-date as the rest of the home; adds a new and different sales feature which will be used at least FOUR TIMES EVERY DAY—much oftener than many other conveniences.



Housewife operates Delco-matic from button in car or button inside home; can open and close door for kids taking out bikes, etc., without effort.



Delco-matic means safety after dark, comfort and convenience day and night in any weather.

The most overdue improvement in any fine home has just arrived in a package marked

Delco-matic

Would you, as an architect, agree that the most overdue item of standard equipment in the architect-designed, custom-built home is the garage door operator? Every such home implies the use of many household conveniences and it is estimated that upward of 20 motors will help to run the household.

Yet, the garage door, largest item of moving equipment in the whole place, may still be operated by hand, just as it was 20 years ago. And, the housewife will still have to get out of her car in rain, snow or midnight darkness to operate it.

GM-Delco Delco-matic Garage Door Operator eliminates this inconsistency and brings the garage door mechanically up-to-date with the rest of the home. It is a new, simple, compact, "package" unit, so well engineered that it weighs only 50 pounds and in new work, can be installed by one man in two hours. There's nothing to install outside the garage except the transmitters and push-buttons in the home-owners cars.

Why not call Crawford Door Sales Co., listed in your phone book under DOORS and ask them to send you "QUICK FACTS about DELCO-MATIC"—or write us for a copy.

See the Delco-matic Display and get our Special Builder Offer at Booth 837 (Coliseum) N.A.H.B. Show, Chicago.

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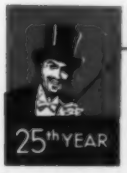
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Here are just six of the many characteristics that make NATIONAL Steel Pipe the best you can possibly buy:

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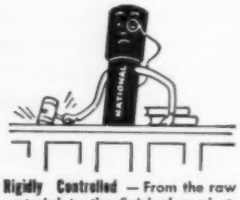
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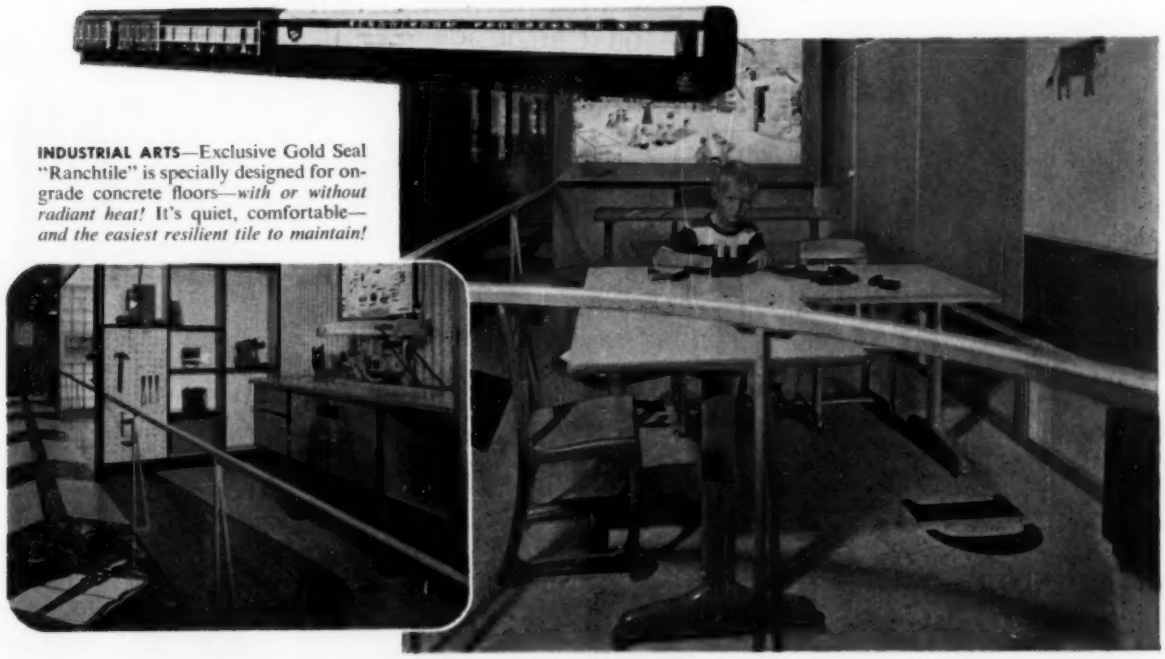
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Now on a 3 to 5-year tour, "Schoolroom Progress U.S.A." is vividly demonstrating to the American public what can be done with the latest products and equipment . . . *stressing the need for more school facilities, and better design.*

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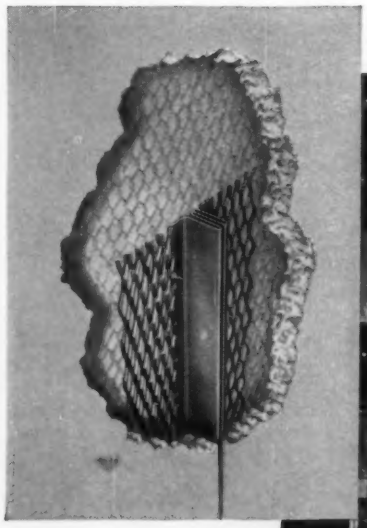
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*Trademark

How a Dallas Hospital* designed for crack-resistant stucco... and did it *decoratively*





Photographs show how Dallas Medical and Surgical Hospital used Penmetal expansion joint to take care of cracking from expansion, and also to give a pleasing pattern to the stucco.

In the small illustration at the left, we've stripped away the stucco, so you can see how Penmetal's unique expansion joint † was applied for *anti-crack protection.* That special ground on the joint expands and contracts with any movement of the stucco. This relieves stresses within the stucco, hence greatly reduces the threat of cracking.

But the unusual part of the job was the way the expansion aperture was handled. Decoratively patterned, it breaks the flat expanse of stucco—actually contributes to the fine appearance of the building.

In addition, the expansion joint delivered construction economies. The one piece joint and ground saved time and labor, and provided a work stop.

The Penmetal expansion joint is made of tight-coat galvanized steel. Also available in pure zinc, for use under extreme corrosive conditions.

Designing in stucco? Then remember the many benefits of specifying Penmetal's revolutionary expansion joint. Just-off-the-press folder gives details.

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of aluminum or steel—
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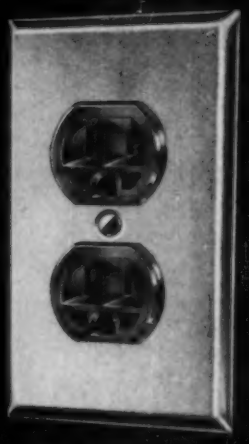
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Hubbell is proud to be associated with the other electrical suppliers for the Prudential Building. It is only through *good connections* like these that business and industry can make the widest, safest and most economical use of electric power.

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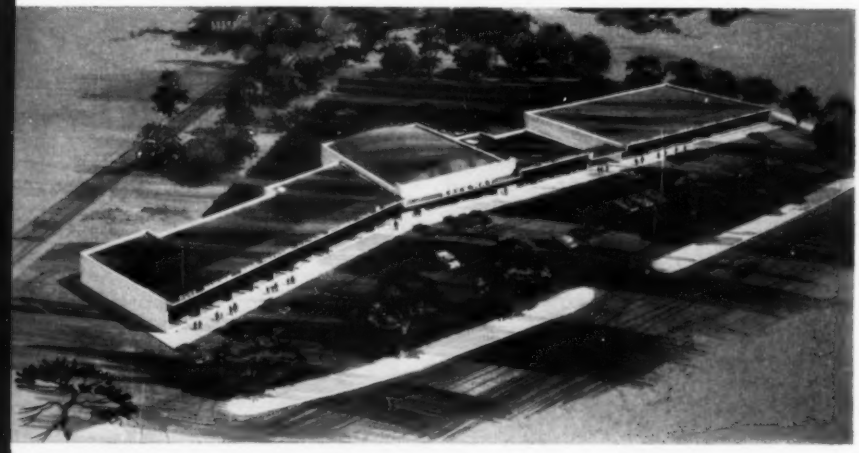


"I demand a heating system with proved performance

...I specify Janitrol"

says Architect Herbert Tannenbaum
New York City

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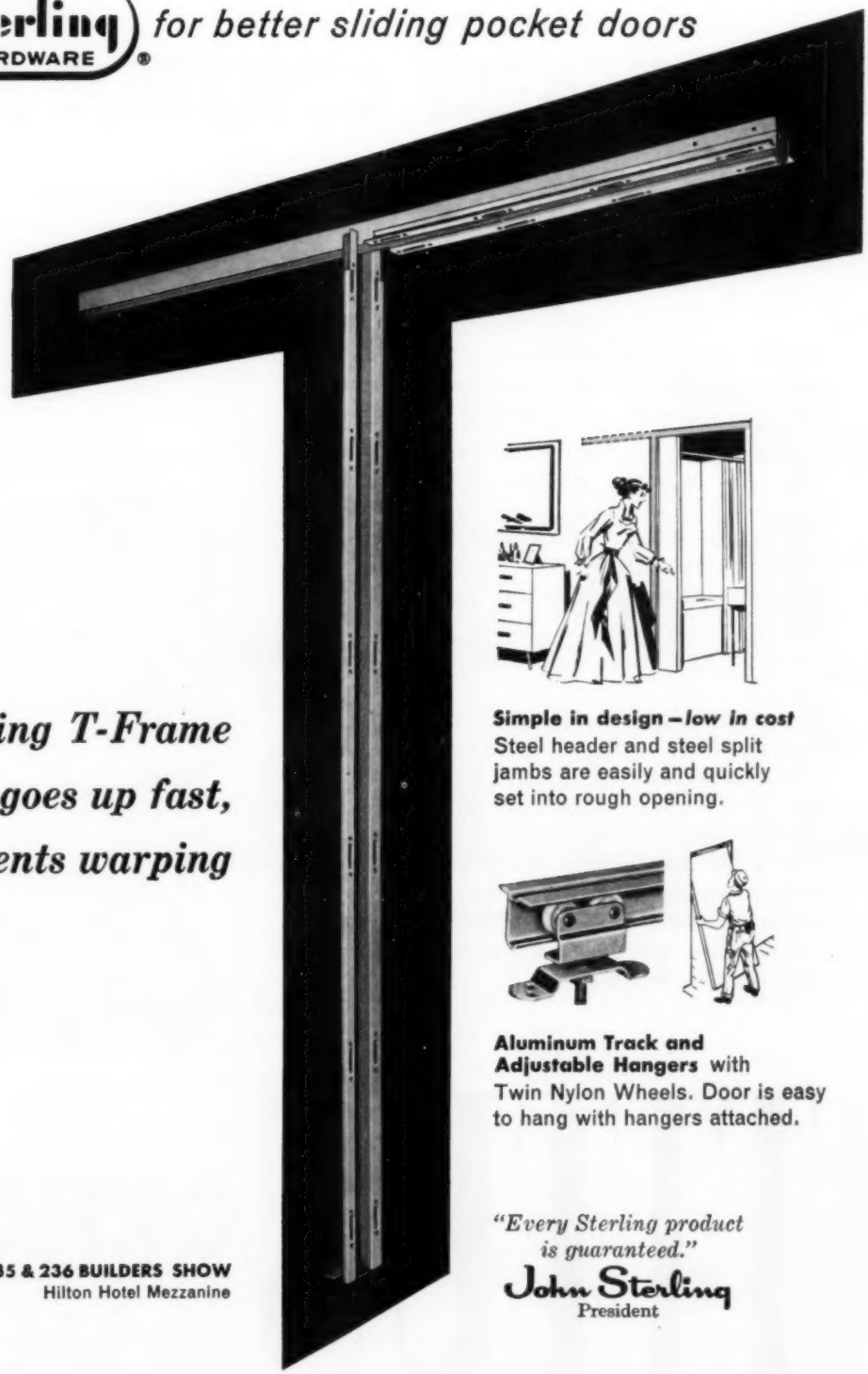
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REALLY CONTROL AIR

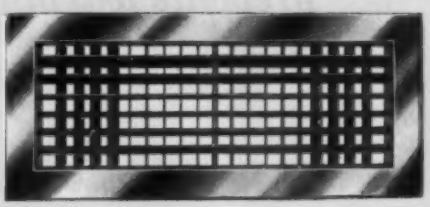
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Know that you can *pinpoint* the air stream to a specific area... or *diffuse* it... or *deflect* it... or *turn* it... or *reverse* it... or *blanket* a certain part of a room. ACCOMPLISH THIS WITH QUICK, SIMPLE, EASY, INDIVIDUAL ADJUSTMENTS OF THE LOUVERS ... without removing grilles from the walls.

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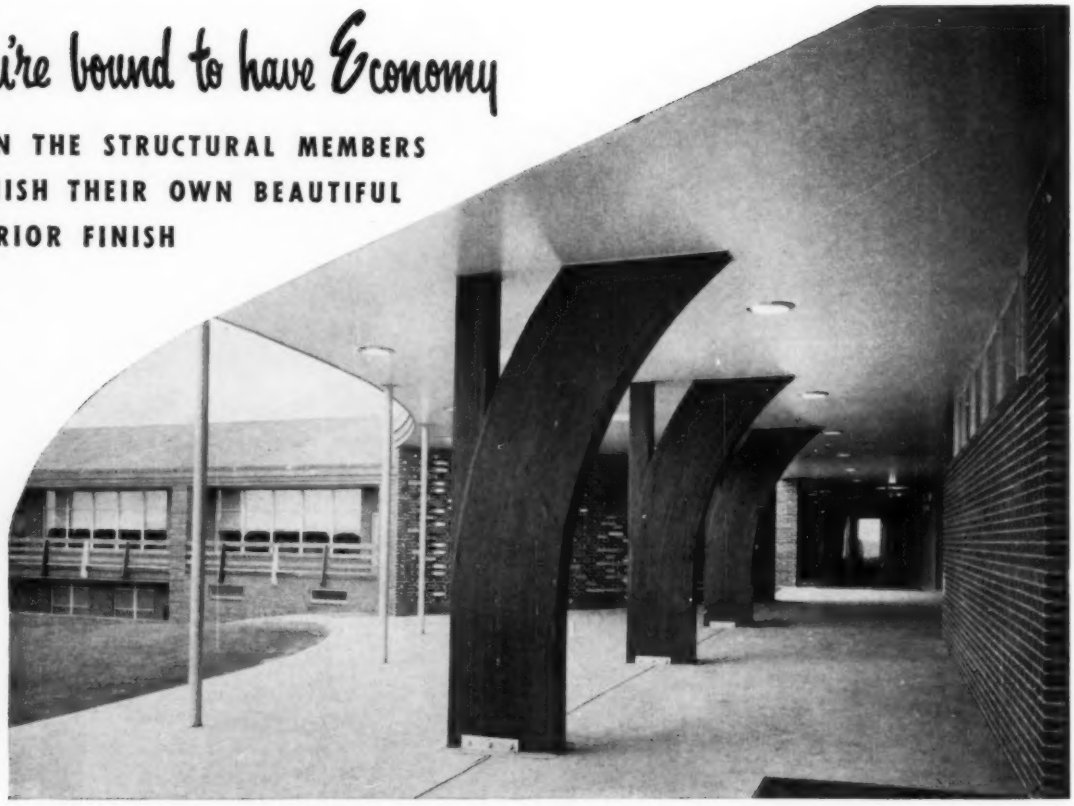
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Interior or Exterior, Rilco glued laminated members add their own distinct beauty to the structure.

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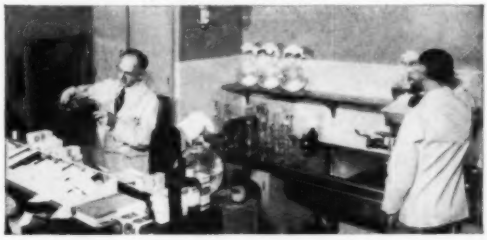
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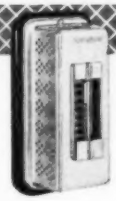
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JOHNSON Individual Room CONTROL
Insures Correct Temperatures, Cuts Fuel Costs

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Among Saint Luke's most important features is a complete system of Johnson *Individual Room* Temperature Control. In each patient room a Johnson Thermostat automatically maintains the particular temperature prescribed to speed the individual patient's recovery. Other thermostats in the administrative offices, pharmacy and public areas provide precision control of temperatures to suit the comfort requirements of the occupants.

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In hospitals everywhere—and in all other types and sizes of buildings, new or existing—Johnson Control automatically insures the ultimate in comfort, convenience and economy. Each Johnson System, like the one in Saint Luke's, is planned to meet the exact needs of the individual building.



Addition to Saint Luke's Hospital, Denver. R. L. Linder & Associates, architects; L. A. Michael, mechanical engineer; Midwest Plumbing & Heating Co., heating contractor; all of Denver.

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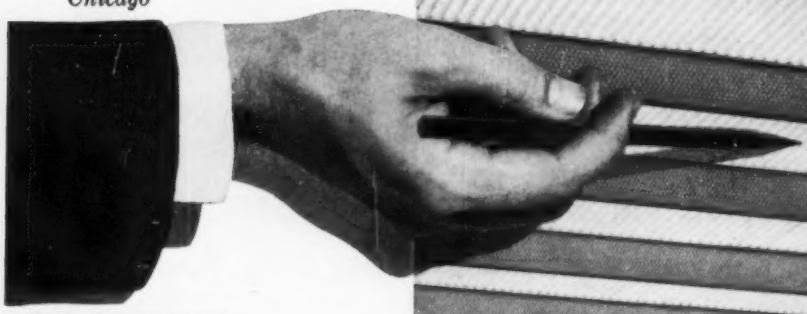


Architects:

Dunlap and Esgar, Inc., Chicago

Client:

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Requirements:

A shadowless light of high intensity . . . uniform distribution without direct or reflected glare . . . *plus* quality acoustical control . . . *plus* plenum for draft-free air distribution.

Specifications:

8821 square feet of Acusti-Luminus Ceiling manufactured by Luminous Ceilings, Inc. to provide 100 foot candles of light maintained at desk level.

Glare-free, evenly diffused light through a suspended, translucent ceiling that hides pipes, ductwork, sprinkler systems and makes a ceiling-wide plenum for air conditioning and heating. Made from unbreakable, corrugated Lumi-Plastic with Acusti-Louvers to quiet distracting noises.

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...here are a few reasons why:

Anchor post incorporates center line positioning

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Center line suspension using Nylon rollers at every fold

Heavy gauge steel frame construction

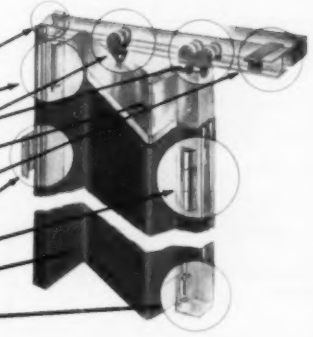
2 Positioning Clips *hold* door in closed or open position

Anchor post snap locks into secure position — no visible screws

Chrome satin finish hardware

The finest Vinyl coated fabrics, completely washable

Wing-nut adjustment provides accurate positioning of lead post to jamb

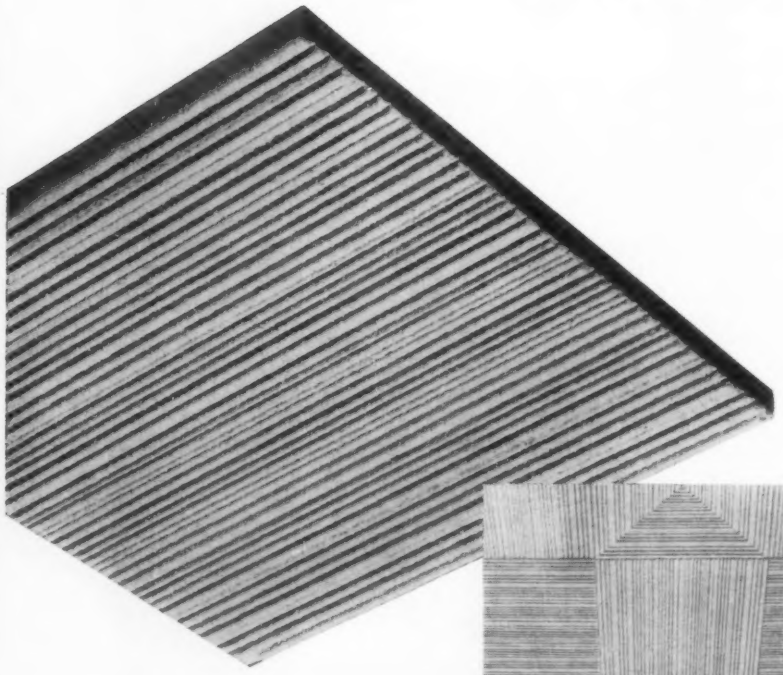


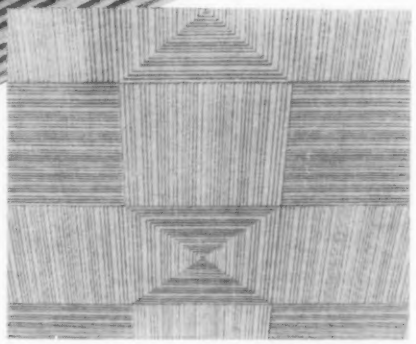
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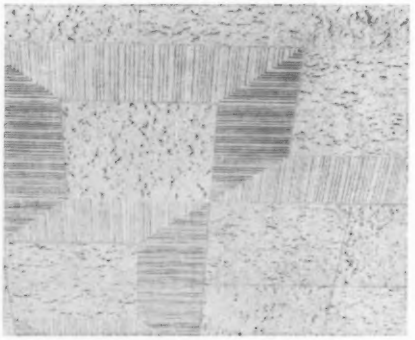
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COMBINATION . . . the surface striations of Crestone blend well with the natural fissuring of Armstrong Travertone, and the two can be worked into many attractive designs.

Sound-Absorption Coefficients of Armstrong Crestone

Mounting	Thickness	125 Cycles	250 Cycles	500 Cycles	1000 Cycles	2000 Cycles	4000 Cycles	N.R.C. Specification Range
(1) Cemented to plaster	⅝"	.16	.23	.69	.72	.73	.73	.55 - .65
(7) Mechanically supported	⅝"	.38	.56	.55	.57	.74	.79	.55 - .65

Armstrong CRESTONE

Armstrong Crestone is a mineral fiber material, striated to create a textured surface of contemporary beauty. Designed for those areas where appearance is a primary factor, Crestone offers many decorative possibilities for commercial and institutional ceilings.

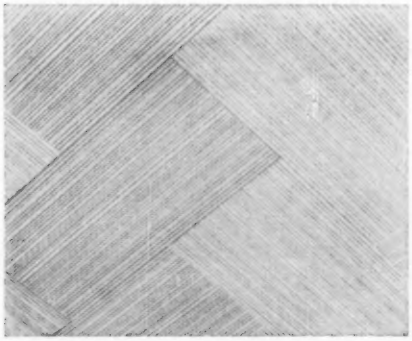
The ridges and valleys on the face of each Crestone tile form strong directional lines of high light and shadow that permit great flexibility in creating patterns. Available in both 12″ x 12″ and 12″ x 24″ sizes, Crestone is ⅝″ thick. It is finished with two coats of light-reflecting white latex paint.

Crestone's mineral fiber composition is rated incombustible under Federal Specification SS-A-118b. Crestone can be safely used where construction must conform to rigid building codes requiring a completely fire-safe material. Installation is by conventional cementing or mechanical suspension methods.

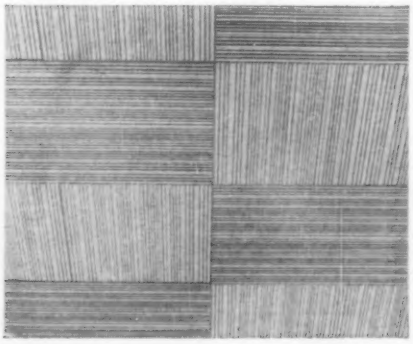
Crestone can be cleaned by vacuum or wallpaper cleaner to remove surface dirt. Painting, when necessary, can be done by either brush or spray gun without affecting the acoustical efficiency of the material.

Get complete specifications on Crestone and the entire line of Armstrong sound-conditioning materials from your Armstrong Acoustical Contractor.

For the free booklet, "Armstrong Acoustical Materials," write Armstrong Cork Company, 4201 Rock Street, Lancaster, Pennsylvania.



HERRINGBONE . . . a good-looking ceiling that's easy to install. Crestone is smartly finished with two coats of white latex paint. It has a light reflection coefficient of .70.



12″ x 24″ PARQUET . . . one of the many smart ceiling patterns possible with Armstrong Crestone. Efficient as well as beautiful, Crestone has an N.R.C. specification range of .55-.65.

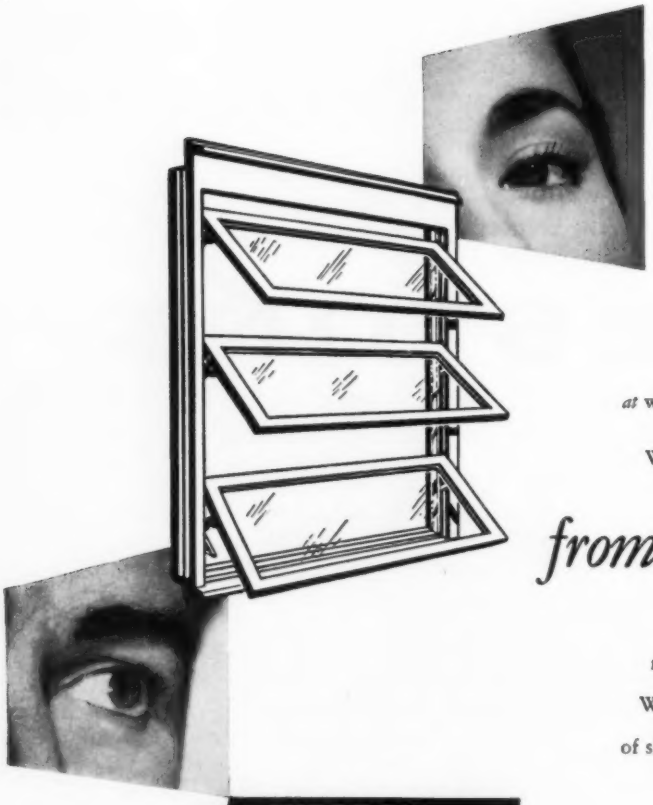


PARALLEL . . . can be made with either 12″ x 12″ or 12″ x 24″ Crestone tiles. Lines of light and shadow formed by the surface striations give an unobtrusive, modern ceiling effect.

Armstrong ACOUSTICAL MATERIALS

Cushiontone® • Travertone* • Arrestone® • Crestone* • Minatone® • Corkoustic® • Perforated Asbestos Board

*TRADE-MARK



More and more, the home-buyer today is looking *at* windows. He seeks performance, quality and style all through the house. WOODCO E-ZEE Loc Wood Awning Windows suit *his* point-of-view.

from any point of view...

Then there's *your* point-of-view which is represented by economy of labor that results from ease-of-installation. This is made possible only by WOODCO's rigid adherence to precise dimensions Finally, the availability of a complete range of sizes and styles to meet every window requirement. WOODCO E-ZEE Loc Wood Awning Windows suit *your* point-of-view.

WOODCO E-ZEE Loc
WOOD AWNING WINDOWS

CHECK THE WOODCO E-ZEE Loc PATENTED FEATURES:

- EASY TO LOCK
- SEQUENCE AIR CONTROL
- TOXIC-TREATED TO PREVENT DECAY
- EXTRA HEAVY SASH and FRAME
- DOUBLE VINYL WEATHERSTRIPPING (Pat. Pend.)
- WATER-REPELLENT TREATED
- COMPLETELY ASSEMBLED

STANLEY L. REBER residence
Avon-by-the-Sea, New Jersey
ROMOLO BOTTELLI, Jr., architect



Woodco® Windows *for the Beautiful point-of-view...*

For full information we refer you to Sweets Catalog or write to

WOODCO CORPORATION

Formerly General Woodcraft Co., Inc.

North Bergen, N. J.

Branches: Schenectady 3, N. Y.; Lowell, Mass. • Factories: Miami 47, Fla.; and Rockwell of Randolph, Inc., Randolph, Wisc.

Photographs of Terraflex tile courtesy **Johns-Manville Corporation,** 22 East 40th Street, New York 17, N. Y.

Smart from every point of view



FLOORING MADE OF BAKELITE VINYL RESINS OFFERS LUXURY LOOKS, LOW UPKEEP, LONG LIFE



Prestige appearance with a saving in maintenance time and cost . . . that's one of the important advantages of flooring made of BAKELITE Brand Vinyl Resins. It's very easy to clean because soil, oil and most chemicals can't penetrate its impervious surface. It resists scuffing, scarring for years of wear.

And this long-term economy is coupled with lasting beauty. Colors are more attractive, durably bright. The unusual variety of shades and patterns allow great latitude in decoration.

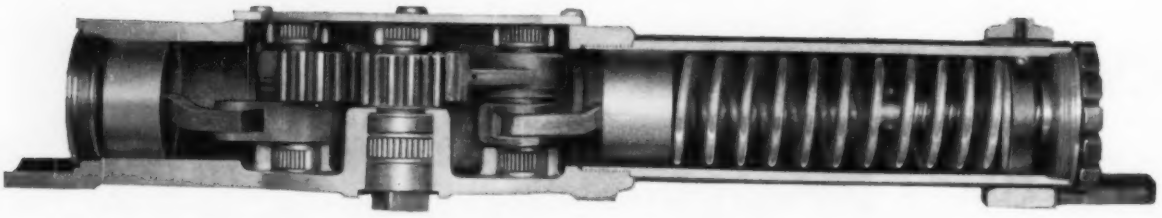
Wherever outstanding style and performance are desired, it's smart to specify flooring made of BAKELITE Vinyl Resins.

BAKELITE BRAND Vinyl Resins

BAKELITE COMPANY, *A Division of Union Carbide and Carbon Corporation* UCC 30 East 42nd Street, New York 17, N. Y.

The term BAKELITE and the Trefoil Symbol are registered trade-marks of UCC

now ALL the door controls are built-in



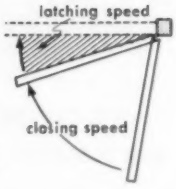
the improved RIXSON

OVERHEAD CONCEALED DOOR CLOSERS

no. 220 series

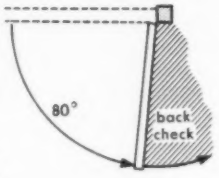
1. two independent closing adjustments

The closing speed from open to approximately 20° is controlled by one adjustment and the latch speed from 20° to closed position by another.



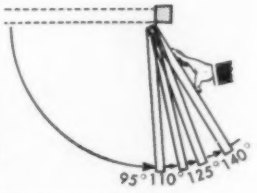
2. hydraulic shock absorber (back check)

At approximately 80° a hydraulic resistance starts to slow down or check the opening action of the door. Hydraulic back check optional.



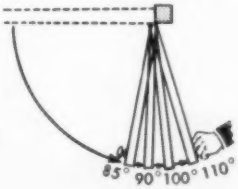
3. built-in spring cushion door stop

Door is "cushion stopped" at choice of any one of 4 factory-set positions—95°, 110°, 125° or 140°. Stop removed for wider openings to 160°.



4. built-in door holder

When specified—built-in to hold door at choice of 85°, 90°, 100° or 110°.



. . . and still the most compact — requires only 2 7/8" x 2 7/8" x 17" space in head jamb.

available for hinged or center hung installations

WRITE FOR FULL DETAILS

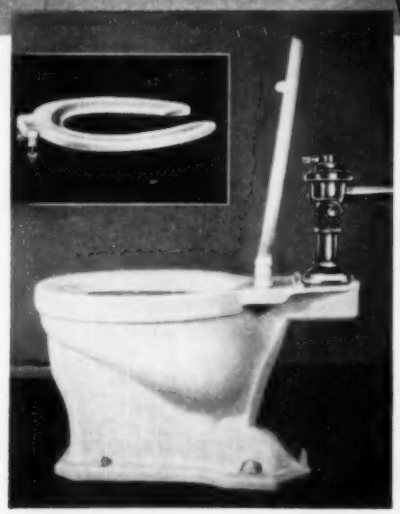
THE OSCAR C. RIXSON COMPANY

9100 w. belmont avenue • franklin park, illinois

NOW! a white seat that STAYS white and can take it



Here's dramatic evidence that Olsonite's new Shock-Proof Seats can really take it! In the torture test shown here, a gigantic 48-inch Stillson wrench was used to pull half of the Olsonite Seat more than 12 inches out of line. The result? No cracks or fractures of any kind!



NOW YOU CAN SPECIFY WHITE SEATS for all industrial and public toilet installations—white seats that won't fade or "yellow" for a lifetime of normal use!

With the new Olsonite White Shock-Proof Seats, it's easier to keep that clean, sanitary appearance than with black seats. Shock-Proof Olsonite Seats have also proven their ability to withstand shocks 5 times greater than ordinary solid one-piece seats. Even deliberate abuse in public toilets and industrial installations won't crack, chip or break Olsonite Shock-Proof Seats—and they won't absorb water.

Like all Olsonite Seats, Shock-Proof models are solid one-piece construction—there is no applied finish to crack or peel. They are sanitary white *all the way through*. Be sure to specify the seat that *stays white*—the seat that can "take it" without damage for a lifetime of normal use—Solid Olsonite Shock-Proof Seats.

Olsonite's complete catalog is available on request. Please write on your letterhead to:

In addition to the regular bowl model (#5) and elongated bowl (#10), the amazing new Olsonite Shock-Proof industrial and commercial seats are available with a concealed check hinge (#5CC and #10CC) made entirely of non-corrosive metal. A lug on the hinge posts locks against cutaway on insert in extended seat back, preventing the seat from being raised to more than 11° beyond perpendicular.

A-4

SOLID Olsonite SEATS

ORIGINATORS OF THE SOLID PLASTIC SEAT

Olsonite Shock-Proof Models Are Available In White or Black

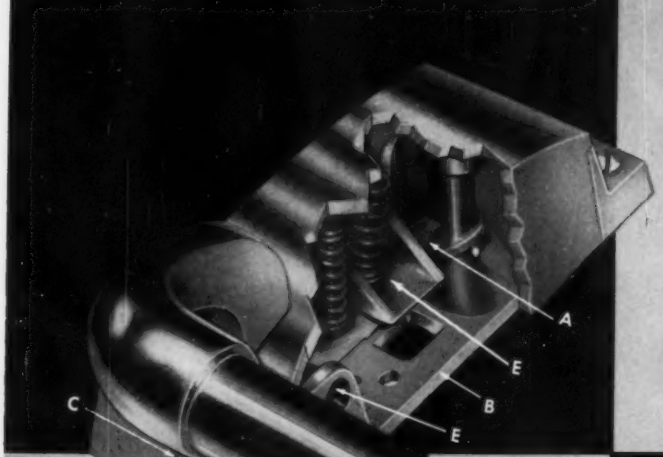
SWEDISH CRUCIBLE STEEL COMPANY

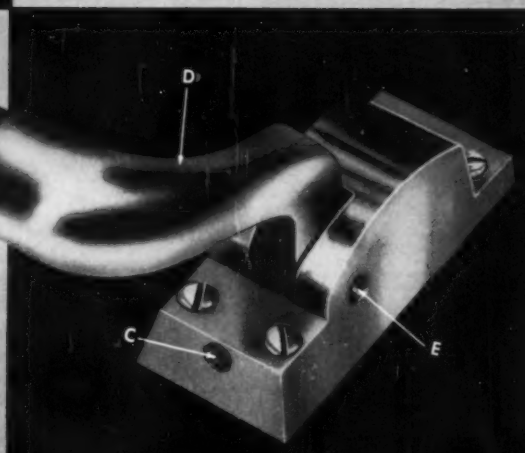
Plastics Division, 8561 Butler Avenue, Detroit 11, Michigan

IMPROVED

"Feather Touch"

PANIC EXIT DEVICE





A. Latch retracts from outside with "oilite" bearings—a feather touch feature.

B. Action stops against heavy cast base for long life.

C. Concealed bolt dog is screw jack type . . . cannot jam . . . cannot be removed.

D. Extra heavy arms . . . plenty of finger clearance.

E. Rustless pivots and springs.

and still only two Moving Parts!

SG

SARGENT & GREENLEAF INC.

ROCHESTER 21, NEW YORK

Right off your Square D Distributor's shelf!

New QMB Saflex Distribution Panelboard



Exactly the Power Panelboard you want—when you want it. Your Square D Distributor stocks boxes, interiors and plug-in units which can be quickly assembled to meet virtually any specifications. Above, interior ready for easy mounting in box.



Plug-in Units are installed easily on tubular bus bars. The solid neutral can be changed in minutes. Here is flexibility that reduces "down time" and saves money.



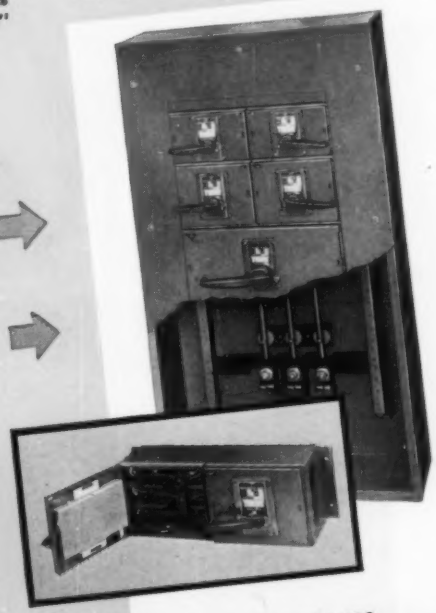
Three Simple Assembly Steps Fronts, with adjustable trim clamps, are available with or without doors.

With ALL these Quality Features

INTERIORS are flexible and adaptable to almost any service and voltage. Plug-in units and solid neutral can be changed simply and quickly.

BOXES provide generous wiring space.
FRONTS furnished with or without doors have adjustable trim clamps.

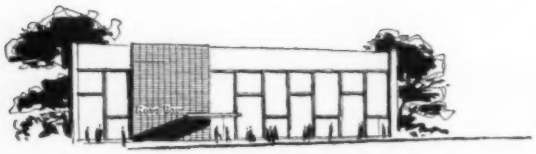
UNITS have quick-make, quick-break switch mechanism, visible blades and are horsepower rated. 30, 60, 100 and 200 ampere units are plug-in, while 400 and 600 ampere units are bolted to the bus.



•*Underwriters' Approved for Service Entrance*

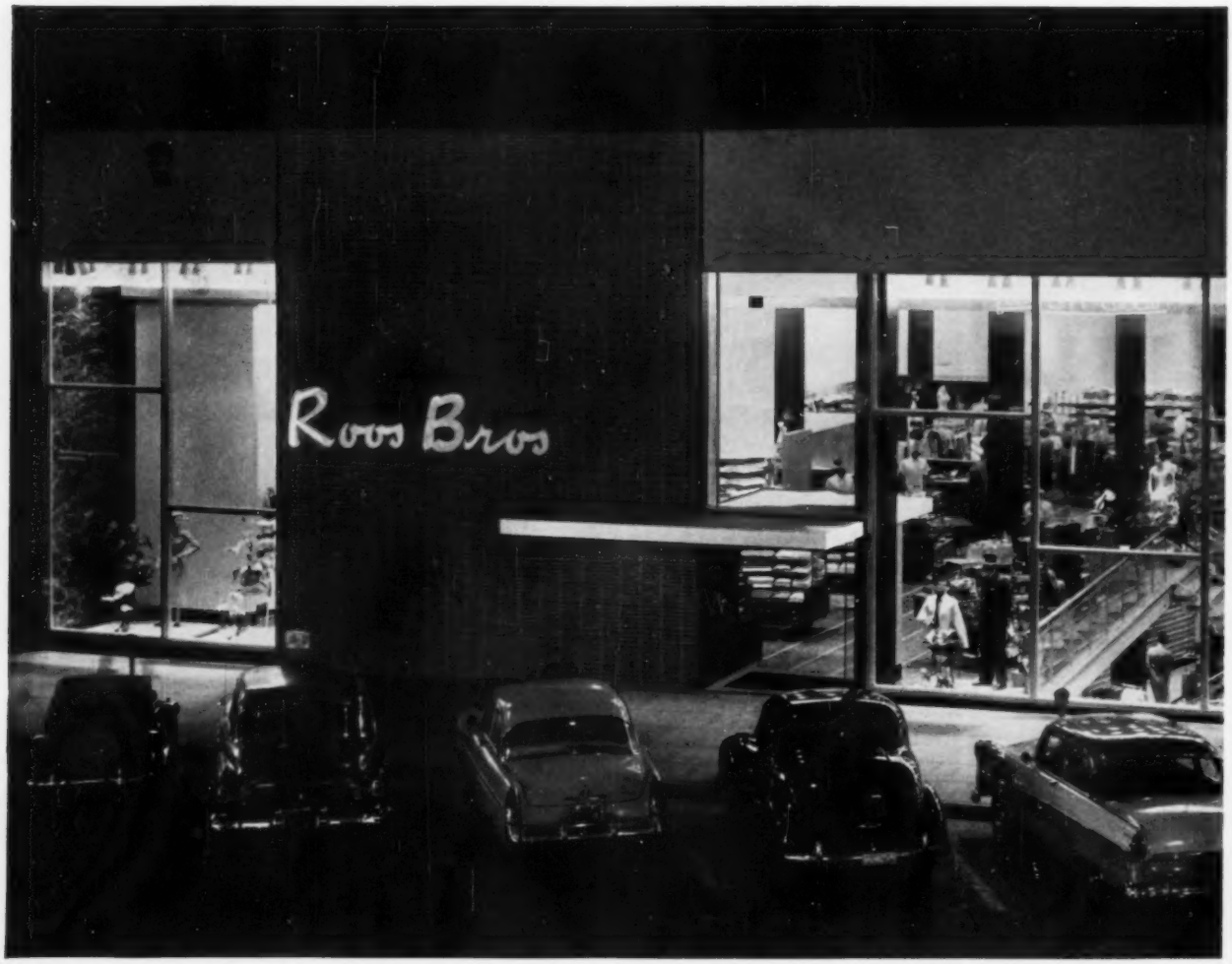
ASK YOUR ELECTRICAL DISTRIBUTOR FOR SQUARE D PRODUCTS

SQUARE D COMPANY



Comfort story of a modern apparel shop

How Honeywell Electronics makes Air Conditioning



Roos. Bros. clothing store, San Mateo, Calif. Architect representing Roos Bros.: Welton Becket, F.A.I.A., & Associates (San Francisco office). Architect-engineer representing Parrott Investment Co.: W. P. Day, San Francisco. Air Conditioning contractor: York Corp. (San Francisco office).

Dramatic three-level plan of Roos Bros. store provides maximum floor area with no feel of crowding.

Major advantages of its Honeywell Electronic Customized Temperature Control system are:

. . . ***big savings on cooling***—outside air is used automatically to help cool the store, cutting costs of mechanical refrigeration.

. . . ***from heating to ventilating to cooling,*** comfort is controlled automatically by a single thermostat.

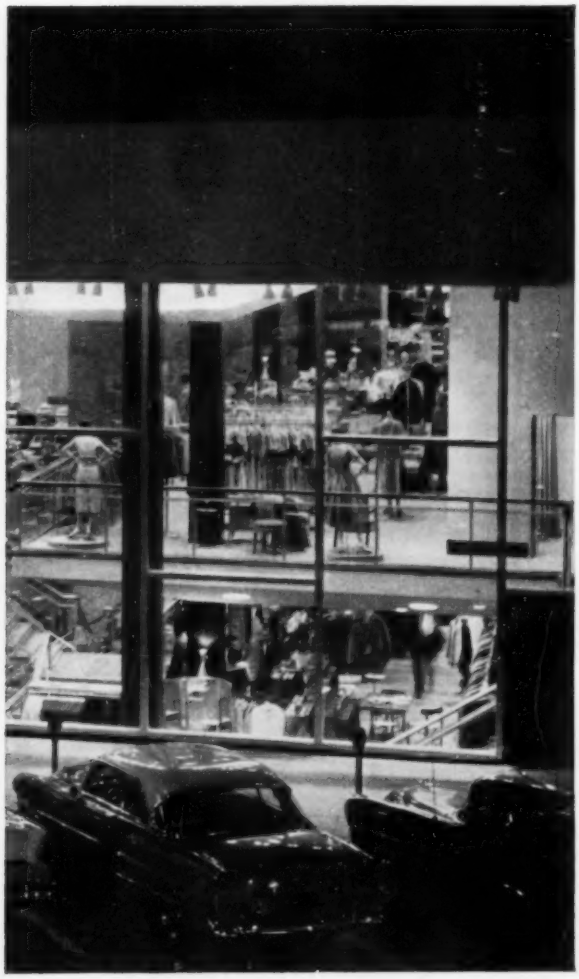
. . . ***an outdoor thermostat*** anticipates weather changes winter and summer, prevents air-cooling shock and winter chill.

. . . ***system on-off switches*** are conveniently located right in the manager's office.

Added up, these features mean maximum comfort with maximum convenience, efficiency and economy.



Systems work better for less money



Now you can give any client ideal comfort, big-system conveniences at lowest cost— with Honeywell Electronic Temperature Control

A few years ago, stores like this one—a smart new Roos Bros. apparel shop in San Mateo, Calif.—had to make do with second-rate indoor comfort.

Why? Because good air conditioning performance depends on good control. And it took the recent development of Honeywell Electronics to make the *best* air conditioning control economically feasible for installations of moderate size.

Before electronics, for example, smaller installations for which a pneumatic system was too expensive had to depend on electric controls—fine for certain applications, but lacking flexibility for meeting varying load requirements of a retail store.

Having acted on wise analysis and guidance in their choice of a control system, Roos Bros. management enjoys many big-system benefits from the store's heating-cooling plant—benefits that only Honeywell Electronic Customized Temperature Control can provide at sensible cost. Explained briefly above, they result in an ideally comfortable shopping environment in which customers are likely to stay longer, buy more.

These benefits suggest some of the ways Honeywell Electronics can help you give your clients unprecedented comfort, convenience, economy—in heating, ventilating, air conditioning and industrial control, in any building, new or existing.

Call your Honeywell office for a new booklet that tells more fully how to apply electronics to your clients' control problems—and for information on the economical Periodic Maintenance Plan. Or write Honeywell, Dept. AR-1-11, Minneapolis 8, Minn.

MINNEAPOLIS
Honeywell
Electronic Controls

112 offices across the nation



Information Please...

Architect: "How can I plan for the most efficient venting system?"



Builder: "What type of vent is best for both economy and buyer satisfaction?"



Client: "How can I be sure of a safe and durable gas venting system?"





Get the latest facts about gas venting

This new, specially prepared 16-page book is full of all the latest facts and helpful information about correct gas venting — its design, planning and installation. You'll find it an important, up-to-date addition to your information file, one that can save you considerable time and money.

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Fred Schurecht, Famous Designer
of the New
Town and Country Restaurant
IN CHICAGO





Distinctive Solid Bronze adds beauty to every installation.

Today the trend is to "open" design—and designers are turning to Chicago Hardware Foundry Stools and Tables to make sure their installations are "style-right" and "color-right." Only at "CHF" will you find the wide selection of colors and the complete choice of finishes in solid bronze, porcelain enamel, chrome and anodized aluminum . . . plus lifetime cast, one-piece construction. For interiors of distinctive beauty, it's important to specify "CHF" stools and tables.



Close-up of counter section with Amber Forever Solid Bronze Stools.



Main dining room with table bases and columns in black porcelain enamel.



"CHF" Stools and Tables are Consistent Top Award Winners in National Food Service Contest.

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Distributors in all Principal Cities

The Chicago Hardware Foundry Company
8160 Commonwealth Ave. North Chicago, Ill.

An open letter to you, as a member of A.I.A.

It is unlikely that you are content to see your creative planning grow to reality through the use of materials and construction practices that barely pass inspection.

Yet you may encourage this result, yourself, in one of two ways:

1. **By not inviting bids directly** from plumbing and other mechanical contractors whose reputation and quality of work are known to you; or

2. **By permitting general contractors to submit bids** without your knowing the sub-contractors on whom these bids are based. This practice gives the successful general contractor an opportunity to reopen the bidding among sub-contractors—whose necessarily sharpened pencils write the certainty of a *minimum* quality job—often at little above actual cost.

These practices have been discussed at times in local areas—between your chapters and our local associations. In many cases, these conferences were fruitful.

Isn't a situation as vital as this, involving our mutual interests, worthy of discussion at the national level? As the only national body that can speak for the plumbing contractor, we cordially invite such discussion.

Our invitation is expressed through this open letter in architectural publications so that you, as an individual member, may register your opinion with your national officers.

R. T. Morrill

President

NATIONAL ASSOCIATION OF PLUMBING CONTRACTORS
1016 20th Street, N. W., Washington 6, D. C.

We SELL INSTALL SERVICE GUARANTEE

AN UNDIVIDED RESPONSIBILITY • MEMBER • NATIONAL ASSOCIATION OF PLUMBING CONTRACTORS, INC.

WHAT IS N.A.P.C.?

The National Association of Plumbing Contractors speaks for 12,000 active plumbing contractors throughout the country. It is the *only* national organization in the plumbing industry at the contractor level.

N.A.P.C. programs include development and research work, apprentice training programs, advisory service for communities considering changes in their plumbing codes, and distribution to members of information on the latest and best practices in the plumbing field.

You may always place utmost confidence in the plumbing contractors who display the N.A.P.C. seal of membership.



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Progressive architects know a good thing when they see it. That's why they specify STRUCTOGLAS as NO. 1 in reinforced plastic building panels.

Produced by an exclusive molding process, STRUCTOGLAS panels feature outstanding uniformity of color, thickness, corrugation, glass fiber dispersion and strength. Rigidly controlled quality cuts installation time and costs to a new low.



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Please send me, without obligation, ( ) literature ( ) name of nearest distributor for STRUCTOGLAS plastic panels.

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Look *beneath* the surface

—HERE'S BEAUTY . . . DURABILITY . . . WAXLESS MAINTENANCE

—HERE'S COMFORT . . . INSULATION . . . NOISE ABSORPTION

IF YOU recommended flooring on the basis of appearance only, you'd be safe with any hit-or-miss selection method. From a standpoint of beauty, practically all hard surface floors are in the running. But look under the surface. Here's where Dodge Vinyl-Cork Tile supplies more of those properties that count *when a floor is lived with.*

In Dodge Vinyl-Cork Tile the plastic surface has extra durability because it's cushioned with shock-absorbing cork. The cork base reduces noise and fatigue and insulates for greater comfort.

Dodge Vinyl-Cork Tile resists scratching and spotting. It can't be harmed by acids, alkalis or greases and never needs waxing.

For greatest all-around satisfaction, make your flooring recommendation Dodge Vinyl-Cork Tile.

DODGE VINYL-CORK TILE is available in 10 solid decorator colors and 9 handsome cork patterns.

DODGE STANDARD CORK TILE for floors and walls is available in light and dark natural random, broad and narrow stripe Parquetry, Dalmatian, and Pioneer Plank.

DODGE Vinyl-Cork TILE

For complete specifications, write for catalog or refer to SWEET'S FILE, Architectural 12i/Do.

Vinyl surface:
Firestone Velon®

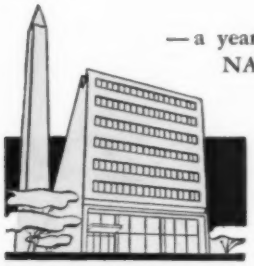
DODGE CORK COMPANY, INC.
Lancaster, Pa.

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....FOR 1956....INCLUDES....



— whole-hearted support of the year-long OPERATION HOME IMPROVEMENT. Here is your opportunity — and ours — to assist in a nationwide, fully organized drive to divert a higher percentage of the consumer's "surplus" dollars into home improvement and maintenance.



— a year-round display of our products in the fabulous, new NATIONAL HOUSING CENTER. Your business will benefit from the operation and services of this Center. Make every effort to visit it. (The Homasote-Nova Exhibit is at the elevators on the Second Floor.)

NATIONAL HOUSING CENTER
WASHINGTON, D. C.



— Homasote insulating-building boards in a still wider range of sizes, thicknesses and densities — plus the new Wilson Air-cor Roof-Decking that makes condensation a problem of the past.



— new and expanded services to architects, builders and dealers — prompt service on current problems — new, more efficient sales aids and literature. Write today for the new 8-page brochure "The Homasote Line Today" — and the new 64-page "Homasote Handbook" that took 20 years to write and 46 years of manufacturing quality products to make it possible. You will find value in both books. Kindly address your inquiry to Dept. A-11.

HOMASOTE COMPANY
TRENTON 3, NEW JERSEY

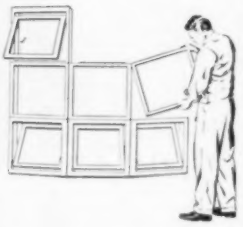
NOW...for the first time it is possible to select EXACTLY the type of window you require with

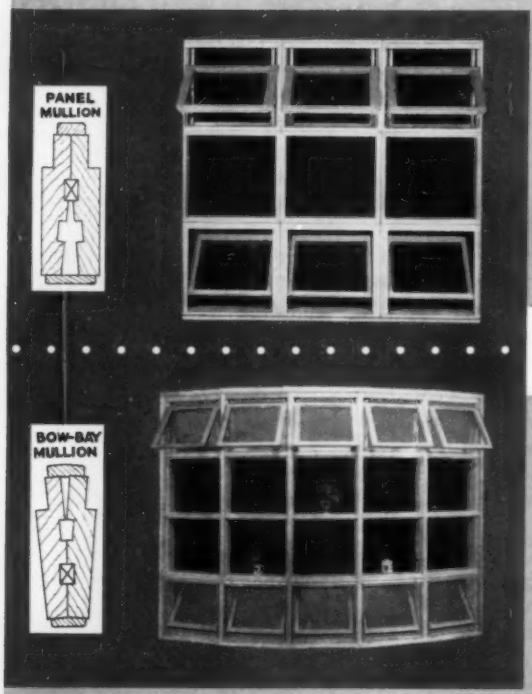


Woodco® SECTIONAL Windows

for the Beautiful point-of-view...

SINGLE LIGHT UNITS **that permit any desired window arrangement ...easily, quickly**

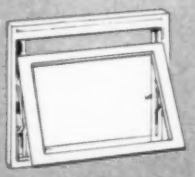




If you desire the dramatic sweep of a straight Woodco HOMESTEADER® panel type window, then select

Woodco® SECTIONALS

that blend into an exciting gallery of light and ventilation.



BASIC AWNING ROTOR-OPERATED

GLAZED WITH DOUBLE-STRENGTH "A" QUALITY GLASS
(Insulating Glass Optional)



BASIC STATIONARY UNIT

If your plans call for the graceful curve of a Woodco BOWBAY® window, then choose

Woodco® SECTIONALS

that flow into exactly the type of architectural line required.



BASIC HOPPER UNIT

There is a combination of Woodco® SECTIONALS *for any of hundreds of possible arrangements.*

Write for further information, specifications and prices to:

Woodco® Products

ROCKWELL of RANDOLPH, Inc.

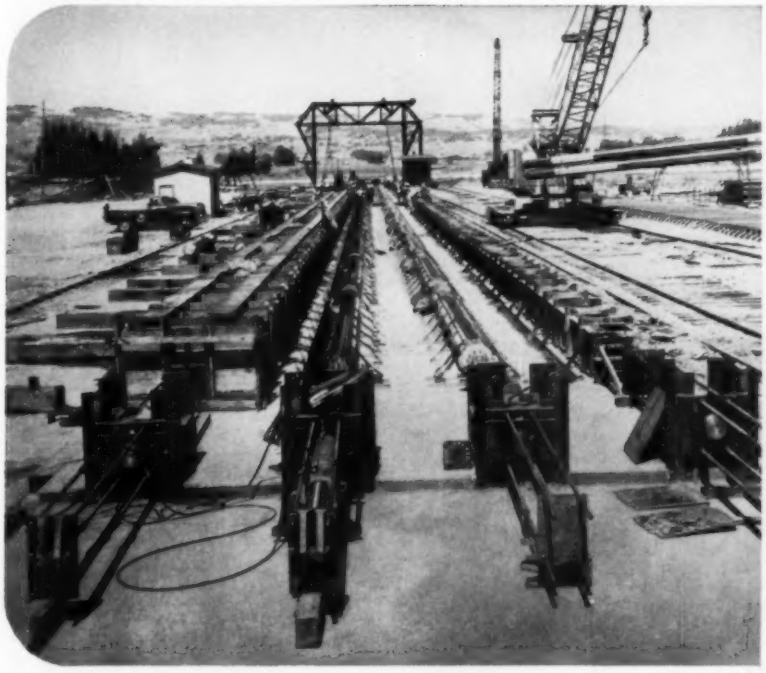
Manufacturers of Woodco Products and Stock Millwork

Randolph, Wisconsin

another fine product of the famous Woodco family

PRESTRESSED CONCRETE PILES

CUT MARINE TERMINAL COST!





(Above, left) Casting yard of the contractor, Ben C. Gerwick, Inc., San Francisco, consists of a 4-line 500' long bed and a 3-line 340' bed. Here the 500' bed is producing 23' and 28' long pile tops on 3 lines. On the left line piles are being steam cured. Strands are being tensioned in the next line while the third line is ready for release of tension. Fourth line has square pretensioned concrete piles for another project.

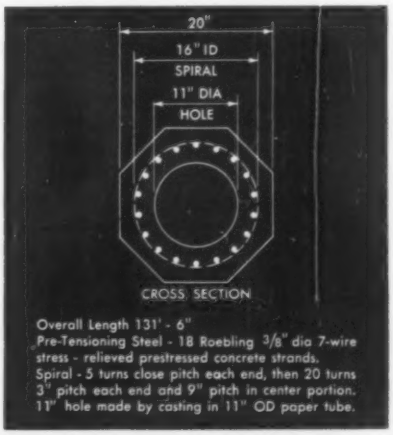
(Above) Each 14" octagonal pile top is cast complete with pipe section for splicing to timber pile.

CONVERTING Piers 15 and 17 into a unified shipping terminal, the Port of San Francisco's Board of State Harbor Commissioners, Mr. S. S. Gorman, Chief Engineer, will soon be using 20" prestressed concrete piles 131'6" long. They will be of the pretensioned, bonded type using 18 Roebling 3/8" dia. 7-wire stress relieved prestressed concrete strands.

Now being driven are timber piles up to 104' long topped with 14" octagonal prestressed members 23' to 28' long. The pile splice will be 10' below mud line. These tops are pretensioned with 11 Roebling 3/8" dia. prestressed concrete strands. Both types of pretensioned piles use 4300 P.S.I. concrete which is obtained in 24 hours with steam curing.

Both the long and composite prestressed piles were chosen over regular precast concrete and Gunited timber piles, respectively, for one reason—lower "in place" cost!

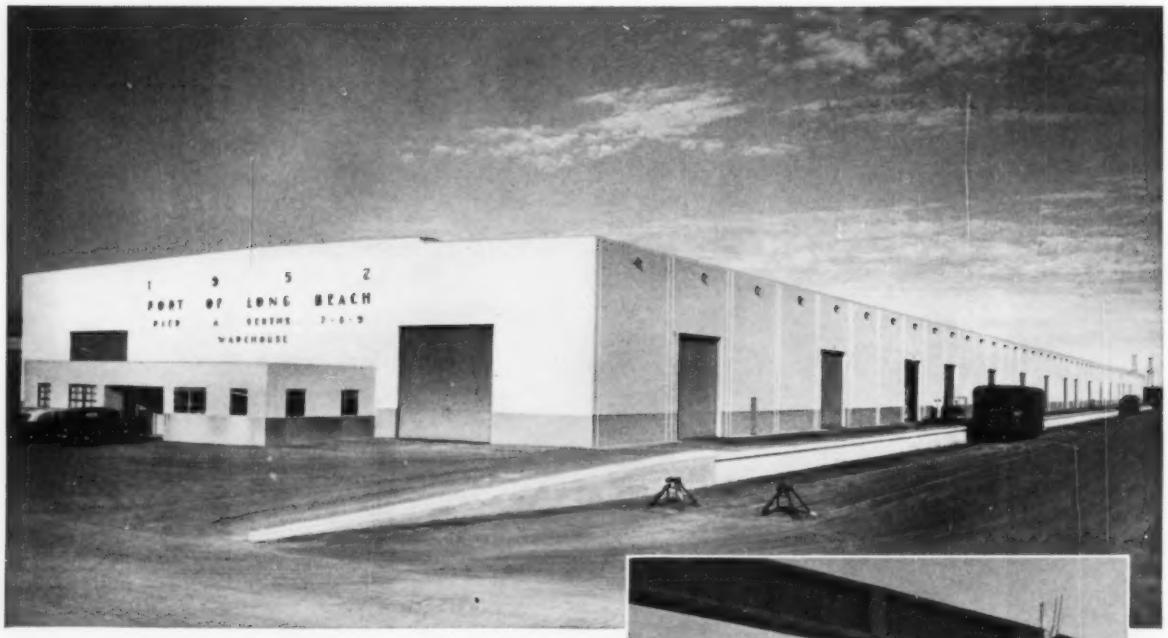
Whether it's piles, girders or slabs; bridges or entire buildings, Roebling engineers know how to get peak efficiency with prestressed concrete. And they will be glad to supply you with full information of tensioning materials and fabricating methods. Write Construction Materials Division, John A. Roebling's Sons Corporation, Trenton 2, New Jersey.



Overall Length 131' - 6"
Pre-Tensioning Steel - 18 Roebling 3/8" dia 7-wire stress - relieved prestressed concrete strands.
Spiral - 5 turns close pitch each end, then 20 turns 3" pitch each end and 9" pitch in center portion.
11" hole made by casting in 11" OD paper tube.

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Precast and Prestressed Concrete Reduce Construction Costs

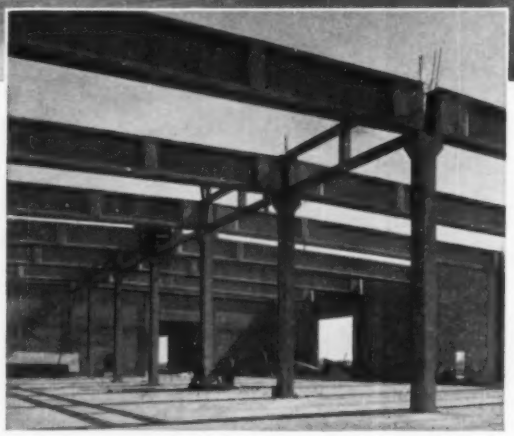
The above photo shows the "Cotton Warehouse" owned by the Port of Long Beach, Calif. It is 150 ft. wide and 1200 ft. long and has precast concrete walls, frame and roof and precast, prestressed concrete roof girders that span 75 ft. from the outside walls to a single row of interior columns down the center of the building.

This structure is an example of the savings that result from the use of precast and prestressed concrete construction. A substantial reduction in construction time resulted from (1) starting the precasting operations at the same time that the foundation work was begun, (2) re-using the formwork frequently and (3) casting the structural units horizontally at a convenient height for the workmen. This plan allowed the workers to repeat the same operations many times. Better craftsmanship and higher quality concrete were the result.

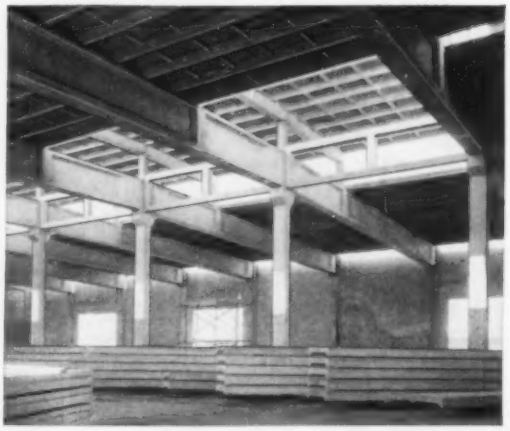
Structures using precast and prestressed concrete units have all the advantages of conventional concrete construction. They can be designed and built to conform with all applicable building codes—anywhere. And they meet all structural requirements of great strength and durability, resistance to severe weathering, long life and ***low-annual-cost*** service. In addition, they can be built to withstand violent lateral forces caused by earthquakes, hurricanes or atomic blasts.

For additional information about precast or prestressed concrete construction write for free illustrated literature. It is distributed only in the United States and Canada.

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A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work



Top photo: general view of warehouse at Long Beach, Calif. Exterior longitudinal walls are precast concrete panels 30-ft. high, 23-ft. wide and 6 in. to 8 in. thick. Photo above shows 56 in. deep, I-shaped girders supported on cast-in-place wall columns and precast interior columns. Span of the precast girders is 75 ft.



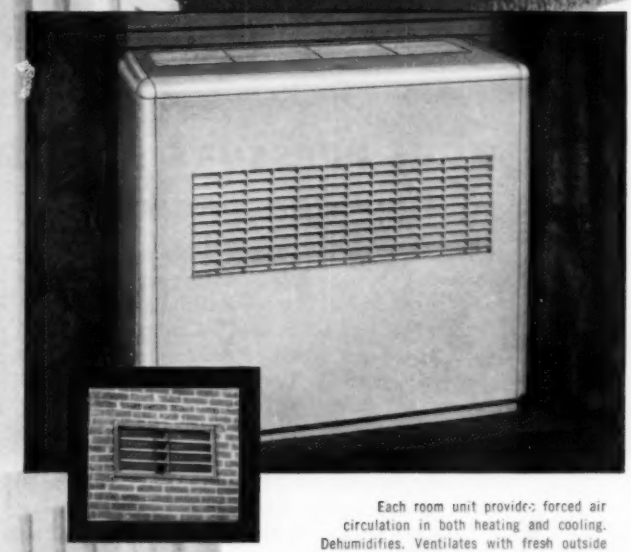
Roof constructed of precast concrete channel slabs resting on prestressed girders and precast monitor frames. Warehouse designed by the office of the late J. H. Davies, consulting structural engineer. Structural engineer was James R. Bole of Long Beach, Calif. Contractor was Johnson-Western Constructors of San Pedro, Calif.

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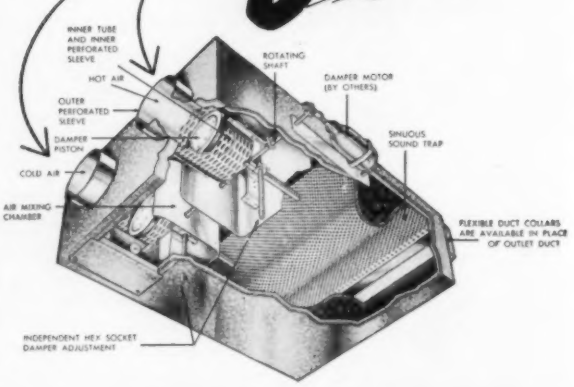
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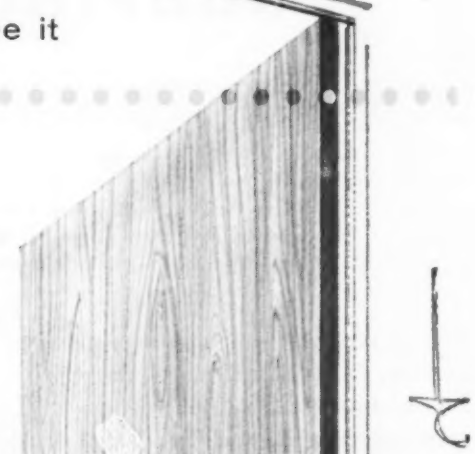
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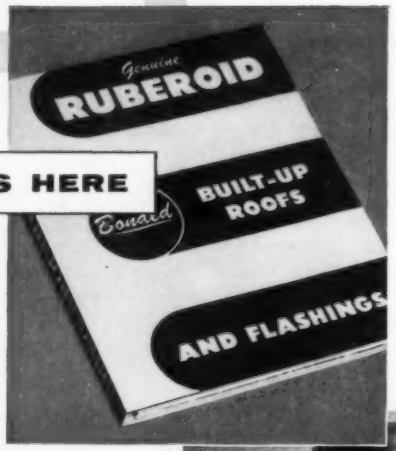
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". . . there still exists another and ancient need which architecture may yet satisfy. I mean of course the need of expression: of holding before men the true and enduring content of their civilization of which technological thought and achievement are consequences, not causes. Beneath these outward trappings we are still Hellenic and Christian — more Hellenic, I think, than the Athenians, more Christian than the Crusaders. Our architecture will ultimately return to these enrapturing springs."

THE ENGINEER'S AESTHETICS

by Joseph Hudnut

IT IS PROBABLE that in the near future the art of architecture will become except for its themes, identical with the art of the structural engineer.

I am not speaking of architecture as a profession. As a profession architecture will continue its distinct organization and legal status, its traditional procedures and peculiar language, and, no doubt, its inherited loyalties. Architecture is too much fun to be renounced either by practitioner or public. But the art of architecture will suffer — is suffering — a strange subversion. Already architects plan, invent, calculate and understand as engineers. And it is as engineers that in the future they will be valued and respected.

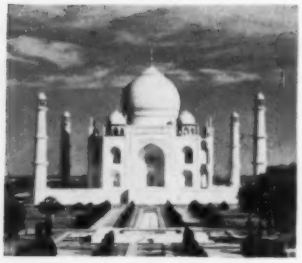
I make this statement of course with many reservations. There will be certain types of shelter, certain areas of value or need, in which architecture will be practiced, like painting or music, as an art of conscious and contrived expression. Those persons who build houses for their own occupancy may be permitted to impress their tastes and their caprices on their environments. There will still be romance in the suburbs. Some institutions — the Church, for example — may cling to their symbols. At times architecture will be practiced, as it is today, as a function of promotion, an adjunct to the art of advertising. And there will remain in and around architecture the buzz of aesthetes curious of such matters as interpenetrating space and the dynamic nature of elliptical lines. These also will have their audiences and their experiments. When therefore I say that engineering will absorb architecture I do not mean to say that there will not exist individual modes of expression in that many-sided art. I mean that in the greater part of their practice — let us say in nine-tenths of it — architects, less concerned with that search for form and meaning which occupied their tradition, will approach their problems of design with the method and in the spirit of engineers. It would not be surprising if office buildings, multi-family dwellings, schools, hospitals, factories, airports and administrative buildings of all kinds should be definitely recognized as works of engineering — although built by architects.

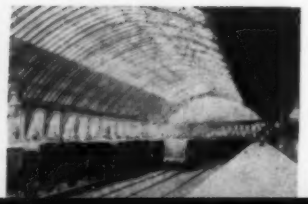
At this point I must hasten to explain that I intend no insult to the











architects of this land. The changes in their practice will not be made by themselves. They will be the consequences of changes in the architect's environment. New modes of manufacture and distribution, new standardizations in the uses of buildings, new materials and mechanizations in the processes of construction and above all new currents of thought and evaluation in that climate of opinion which intimately envelopes architecture — these will force upon architects the new conformities to which the engineering mind is already adapted. Below the surface aspects of their profession architects are being silently sifted by a Law of Subconscious Selection. Those who survive will be those most fitted for an industrialized system and economy. And perhaps that is as it should be.

Are we to assume then that buildings will no longer be beautiful? Of course not. Works of engineering are often beautiful. The Brooklyn Bridge is beautiful; it has been compared to a harp held against the sky and its towers are those of a cathedral. The Merritt Parkway is beautiful; a "ribbon inviting to adventure." But this beauty is not quite the same as that of architecture as architecture existed before our time. A difference arises, not because works of engineering are more rigorously functional — the Queensboro Bridge, as hideous as anything this side of Hell, is deliriously functional — but because the tradition of engineering, like that of architecture, includes an ideal of beauty peculiar to itself and quite distinct from that of any other art. Is it not reasonable to suppose then that architects (still in search of beauty) will, when they become engineers, reform their ideal of beauty into a harmony with the ideal of engineers? That is, in fact, precisely what they are doing. In part at least they have accepted as their own the *engineer's aesthetics*.

By aesthetics I do not mean those researches in psychology which treat of the emotions evoked by art nor am I concerned with a philosophy of the beautiful. My definition, for the purpose of this essay, is less exacting and less perilous than either of these. By aesthetics I mean only those practices, or ways of working, of which beauty is a consequence. Once upon a time, for example, architects were solicitous to give proportion to everything they built; beauty, they believed, was in part a consequence of proportion; and they could condemn the Taj Mahal for a lack of that subtle attribute. They could also condemn the great iron shed of the St. Pancras Railway Station, having failed to remember that proportion, although a source of beauty in architectural form, ought not to be expected in a pattern determined by scientific calculation. The practice of architecture was once hedged about by such *principles of method* none of which rested upon a philosophy or upon any persuasive discoveries in the experiments of psychologists and yet were the universally accepted laws of design. Engineering also had its principles of method which, when followed, led to a realization of beauty. These did not form a system, were not frozen into an academy, formed no part in an arsenal of criticism and yet were everywhere current in the practice of engineers.

* * * * * * * *

At least three of these principles of method, hitherto characteristic of engineering, are now becoming cardinal in the art of architecture. Among these the practice least questioned is that of purifying the patterns of structure from all emotional content other than that which is inherent in their actual and objective forms. Engineers do not admit romance as an ingredient in their bridges and aqueducts. They do not interpret their works with symbol or humanize them with ornament. They are equally indifferent to philosophies, to historical allusion and to the guidance of academies. Whatever beauty they attain is a consequence of their reliance upon the potentialities of structure to express its own idea — and of course upon the sensitivity of

the spectator to that expression. The Germans, who give everything a name, call this manner of working *materialgerechtigkeit*. In England it is called *purism*.

Lessing, having noted in the *Laocoön* that the arts — music, letters, painting, sculpture, drama, architecture — had each a unique quality and range of expression, declared that this quality and range are determined in each art by the materials and techniques employed. The expressive potentialities of music, for example, are limited to whatever ideas and feelings may be evoked by sound waves having a regular recurrence; the expressive potentialities of painting are limited to those emotions which can be conveyed by colors laid on a two-dimensional surface; and architecture, in the same manner, is — or ought to be — limited in its range by that expression which can be attained by the functional use of space and structure.



From this premise, which appears to be unassailable, the disciples of Lessing drew the corollary that a work of art is most eloquent when the artist, having realized the potentialities of his material, renounces all attempts at a wider expressiveness. An artist must know the kind of expression suited to his art. He must not try to do in one art that which can be better done in another. A musician who tries to express in music feelings which depend for their recognition on literary associations confuses and often defeats the more moving speech of his tonal pattern. The brilliance and surge of Tschaikowsky would be therefore more immediately felt had he omitted his romantic allusions to Romeo and Juliet. A painter who tries to express in painting the human interest of story and representation blurs the more directly-apprehended meanings of his line and color. The serenities of Picasso would therefore intrigue us more poignantly if the demoiselles d'Avignon did not make their appearance behind his nice balance of surface area and contour. And the Houses of Parliament would lift their chiseled towers out of the mists of London with a more touching majesty were they not screened by the more engaging mists of history.



I do not suggest that engineers had any part in this fine-spun doctrine. Engineers do not have doctrines. Among engineers purism had long since become, not a doctrine, but a practice. It was a practice which arose from nothing more recondite than reasonable adaptations of materials to the thing to be done; it rested, not upon a philosophy, but upon common sense. Engineers did not need to be concerned lest they should cloud with sentiment the beautiful works which they created — the viaducts of Eiffel, the bridges of Rennie, the exposition halls of Cottancin — for they professed no competence whatever in such matters nor did they desire any competence. Engineers must have been astonished when late in the nineteenth century the speculators in aesthetics decorated their pragmatical tradition with subtleties of dialectic. Good heavens, they had been practicing *materialgerechtigkeit* for a hundred years without knowing it!



The architects too must have been astonished when they learned that the engineers, who were supposed to have no principle whatever, actually had built their practice on a principle superior to their own! Moreover it was evident that in engineering purism had assumed an exceptionally lucid and vigorous character. Architects who had been persuaded of the rightness of purism and who were therefore ready to limit the scope of their art to those feelings which space and structure might express now became aware of a severely ascetic beauty which arose, not merely from conformities to the capacities of space and structure, but from conformities to the more restricted competencies of a single material. That material was steel — the material which architects had so improvidently resigned to the trusteeship



of engineers. It became evident that steel had well-defined avenues of expression quite apart from those of wood or stone. Just as a painter recognizes in the multiplex art of painting the separate authorities of water-color, oil and tempera — each of which "can do things that the others cannot do" — so the architect recognized in steel a range and quality of expressiveness peculiar to itself. There existed a possibility of beauty in steel which could be defeated not only by sugar coatings of Greek column and Gothic pinnacle but by the more subtle incongruities of other materials and techniques. This the engineer taught, not by precept, but by example.

Clearly the architects had much to answer for. Their excesses in sentimentalities and showmanship were plain; they had displayed a most grievous lack of integrity; and they were penitent. The engineer's asceticism, which had begun as a principle of method, now rose before them as a morality. And it was then that Mr. LeCorbusier invited the architect — uncertain of his own tradition, eager to relate his troubled art with the scheme of a mechanized universe — to share not only the engineer's purism but to share also the virility, self-discipline, honesty, usefulness and innocence of that Noble Savage. Nothing can be more disquieting to an artist who is questioning his own standards (the customary habit of a scientist!) than sonorous rhetoric on the morality of his art — especially if the art is one to which morality has no relationship whatever. In the arts integrity is a word which — unless it be the word organic — is unequaled in its soporific influence over the intelligence. Before these awesome metaphors architects lay down their burnished arms.





Moralities, and philosophies as well, can often be explained by the pressures of events which accompany them. It is probable that the architects would not have embraced either the doctrine of purism or the specious morality of functionalism had not a cold wind of economic necessity blown so vast a debris of column, arch and traceried finial from the sides of their steel buildings. The architect did not actually lose his confidence in his aristocratic art until he had lost also the princely patron who sustained that art. It was not until the architect, like the engineer, had become the servant of industry that he made so exalted a virtue of the engineer's necessity. That necessity had become the architect's also.

All honor to those gallant pioneers who developed from the dicta of Lessing the cathartic theory of purism! Purism was — like cubism, impressionism, surrealism — a re-examination of the fundamentals of art, made necessary by the dismal academic art of their time. Thus they laid the bases of modern art. And besides they are responsible for some excellent architecture. Nevertheless we ought to remind ourselves that purism is neither a philosophical nor a scientific concept. Purism is a preference and ought to be recognized as such. Certainly every architect has a right to his preference and so has the Spirit of Our Industrial Era. And just as a poet may prefer the disciplines of the sonnet form to the liberty of blank verse so an architect may prefer the disciplines of purism to the licentiousness of the styles. We know how artists do their best work when they design within the frame of known and accepted conventions. And yet it would be a pity if as a consequence we were to have only one kind of architecture — or if in our need for a boundary we should submit our art to a doctrine which, if valid, would stain half of the greatest masterpieces in architectural history. It may be that architecture is, like opera, an art made up of a fusion of many arts and techniques. Perhaps architecture is, like love, a "many-splendored thing." Nor is it true that architecture can tell a story that could be told in words or convey a sentiment that could be translated into music.

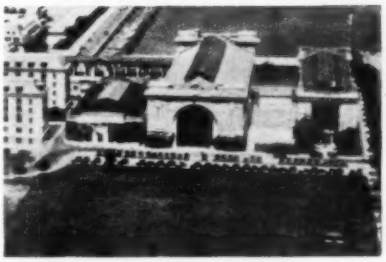
Preferences often grow into fashions and fashions into dogmas. The dry



Gothic architecture of the military academy at West Point and the lush Baroque of the naval academy at Annapolis had each their origin in a preference which had grown into a dogma and from a dogma into a tyranny — and each was explained and defended by passion and high argument.

* * * * * * *

Neither of these works of architecture exhibits to any marked degree the second among those engineer's aesthetics which I wish to discuss in this essay. Neither of them proclaims a beauty which like that of the new Air Academy arises directly from technological invention and daring — a beauty which has its origin not in form, or in the remembrances that cluster about form, but in action and interaction within and among structural elements.

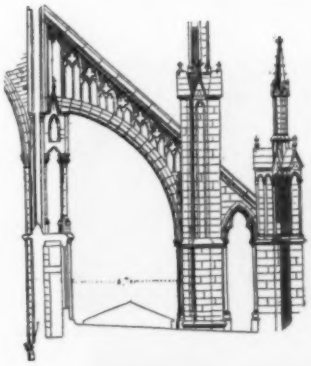


A preference for that quality of beauty — a beauty which has its source in that *principle of method* — has characterized the engineer from the beginnings of his profession. Engineers delight in difficulties and when they have overcome difficulties they delight to display that victory to the world. Both of these satisfactions are no doubt intellectual satisfactions; but they are also aesthetic; and that is true also of our own pleasure whenever we find the technological achievements of engineers made visible in their structures and share in our imaginations the balance and interaction of their arrested energies. Works of engineering are live creatures; like athletes they are pleased to display their strength and poise. They are dramas which tell us what is going on among their many actors; they are events.

Architects who once admired the beauty of repose are now aware of the active beauty of techniques. They show a marked preference for technological virtuosities and are at pains to announce their preferences. They are thinking as engineers.



Of course I know that architects have always (well, nearly always) been conscious of the energies which give life to their constructions and have made these energies important elements in their designs. The architects of the Parthenon were careful to show us how their peristyles press against their celestial burdens, and the buttresses of Gothic cathedrals, although loaded with ascending ornament, nevertheless acknowledge their role as the containing elements around a structural system. But in all of these the forces are felt, not described. They are the secret essences which give vitality to the fabric but their part in the expressive character of the architectural form is seldom explicitly revealed. The form was, until our time, a "corrected view of the truth."



"The force and spirit of the constructive parts," said Alberti, "is a unifying influence but must nevertheless play a secondary role — the supremacy of form over matter being the primary concern of the architect." It is fair to say that the engineer has made that principle momentarily outmoded.

Le Corbusier once defined architecture as "the masterly, correct and magnificent play of masses brought together in the light" and he agreed with Plato that the primary shapes of geometry, "distinct and tangible within us and without ambiguity," are the most beautiful. Certainly the beauty of these shapes does not rest upon a structural principle nor is their magnificent play in the light overshadowed by any failure of logical consistency. Perhaps there is illustrated here an essential distinction between the philosopher-architect and the engineer-architect.



In contrast to the patterns of architecture, the patterns of engineering often appear to be direct translations of equilibriums of forces — of forces in and around — into physical substances. The engineer is always aware of the stresses which are active below the appearances of his design; these are ethereal animated patterns on which he builds his visible pattern; and we know how often the beauty of such patterns has been explained by analogies



between them and the forms of nature. Just as a tree grasps the earth with its roots and with its branches reaches into the sun and wind, so the suspension bridge presses its great towers against the floor of the river and lifts its slender filaments against the sky. The Bridge Over the Golden Gate is a colossal diagram in which are set forth, as in a mathematical formula, all of its active forces: the pull of the cables against their firm anchors, the bending of the towers this way and that with the vagaries of traffic and the winds, the tensions of the strings that delicately sustain the long arc of the roadway.



The themes of architecture do not often include a theatre so grandiose as a suspension bridge and the practice of architecture is too often hedged about by commercial and human factors which do not as a rule embarrass the engineer. That is why the engineer's visible symphonies seem often to lose in cogency when we encounter them in buildings which minister more intimately to our daily lives. Our school houses, for example, resolutely display their steel armatures without exciting us to any participation in their somewhat adolescent play and the infinite scorn of our new apartment houses for any shred of grace does not persuade us that truth is beauty however frankly they may confess the indelicacies of their anatomies. I am speaking in general terms; of course I know that there are instances of grandeur even in factories and housing projects; and the engineer-architect's principle of method is often successful in skyscrapers. I have in mind those recent skyscrapers which are stripped of everything but their iron and cellular monotonies — structural circumstance so insistently shown that we feel even plate glass to be an impertinence. No doubt these have lost that "glory and pride of exaltation" which Louis Sullivan called the organ note of their appeal — the ascending power that we feel for example in the central building at Rockefeller Center — but they have definitely taken a high rank in the engineer's hierarchy of beauty. Perhaps that is where they have always belonged.

Among all modern buildings the beauty of engineering-architecture is most persuasively exhibited in the great iron sheds that were once built as parts of railway stations and are now built as convention halls. The Galerie des Machines at the Paris Exhibition of 1889 has taken its place in the legends of architecture with the Basilica of Maxentius and it would not be surprising if the new Kresge Auditorium at M.I.T. should achieve a parallel renown. The architect — in his building at M.I.T. — has been at great pains to make clear, as the basis of his design, the equilibrium and power of two great bowls of concrete, one suspended above the other. One of these lifts an audience from the earth; the other, inverted and anchored at three points only, bends over the first like a man-made sky; and the unity of the whole is thus attained by the play of effort and weight in the great shell that rests on the ground and the volatile energies of the canopy above it. The beauty of this work does not rest on an ordering of useful spaces — for such an ordering could have been achieved with greater harmony and with greater economy of means — but upon a proud solution of a technological problem. This excellence is an excellence of engineering.



* * * * * * *

Works of engineering so dramatic as the Kresge Auditorium could not, I think, form architecture's daily food. Neither architecture nor engineering can be forever adventurous. In the thousands of buildings which must be built each year there must be established and abbreviated practices which permit only a limited range of invention and astonishment. For such buildings the engineer has created *standards*.



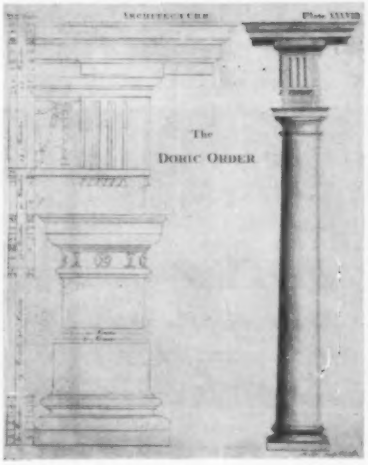
All the world knows that Americans are supreme in the arts of standardi-



zation. Pittsburgh enlightened our land with her standardizations in steel manufacture. It is characteristic of our culture that we should desire such standards in our art. It is not surprising that we should find standards beautiful.

I have not forgotten that architects had standards before the founding of Pittsburgh — and what standard, for example, could be more universal than the Doric column? No one has explained the seduction of that pattern throughout the ages or told us why until yesterday it was as eloquent in South Africa, in London, in Stalingrad and in Chicago as it is on the shores of the Mediterranean. One might say of classical architecture in general that it is — perhaps I should say it was — an art of standards. And we know that this fact did not discourage an individuality of idea and character.

A great architect has defined a standard as "that simplified practical exemplar of anything in general use which embodies a fusion of the best of its anterior forms" — and he said that standards are one of the immediate prerequisites of civilization. This definition is clearly that of an engineer: no artist would willingly fuse his work with anterior forms. There is in it also the concept of progress and — if I have understood the author — he has identified a progress towards technological perfection with a progress towards beauty. That concept also could only be that of an engineer. The artist knows that the arts do not progress.

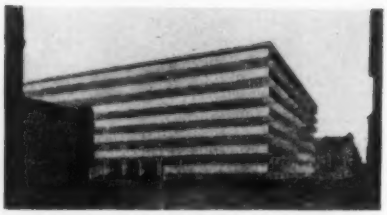


Le Corbusier, as we all know, illustrated the development of technological standards with a little essay on the Parthenon. The columns of the Parthenon, he tells us, are products of a selection applied to a standard, the Greek temple having been standardized in all its parts before the building of the Parthenon. In the same manner, we learn, the mechanisms of modern life — the airplane, the locomotive, the television set — advance towards perfection. All motor cars have the same essential arrangements; design consists in a search for a simplicity and harmony beyond that of technical necessity. And from this principle of method Le Corbusier drew the conclusion that our engineers, the Hellenes of our day, are re-creating in the shapes of their motor cars a beauty that Phidias might have envied. The author neglected to add that the Doric column has stubbornly refused to progress since the last stone of the Parthenon was laid.

The distinction between technological standards and those of art is one of great importance in the art of architecture. Until our time the architect's delight in standards of art was quite separate from his delight in the serviceable standards which were the practical requirements of his craft. The standards of art existed as elements of form; their beauty was the beauty of form; and the contemplation of these elements was unalloyed by necessity or desire. The columns which decorated the neo-classical buildings of our time did not promise the architect anything. They were without reference to progress in industry or to efficiency in the conduct of life and one could apply them to the Lincoln Memorial without any other intention than a renewed delight in their stately processionals. Of course I know that the Doric column had its origin in the qualifying laws of its material but I do not believe that an awareness of that fact forms any part in the apprehension of its beauty. The Doric column existed, like all the elements of classical design, in a realm set aside for architecture. It was as alien to the spirit of engineering as a sonnet of Wordsworth or a divertimento of Mozart.



The engineer's delight in standards is not so immediate. It does not rest upon a recognition of form; it has its source rather in the hundred ideas that surround and penetrate standards. A standard may, as I have noted, embody the idea of progress — of that promise and unfoldment in our environment





PICTURE CREDITS

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Ribbon window, from Power of Buildings, by Hugh Ferriss
A hotel in Miami, Ewing Galloway

that are so often mistaken for beauty. A standard may also embrace the ideas of service and convenience and of pleasing economies in cost and operation. Our natural pleasure in craft is there and our contemporary joy in that enlargement of human power that is the gift of our machines. And no one will deny that standards, including the type-shapes which are generic to industrial manufacture, are indeed prerequisites in our civilization — that they are prime factors in social health and well-being.

Such standards have definitely an aesthetic character. By this I mean that their use is one of those principles of method by which desire, hope and a sense of accomplishment may become summarized in a building. Consider, for example, the ribbon window. A ribbon window is more than streamlining; it is an embodiment of an engineer's longing for system and efficiency of operation. The fact that such a system and efficiency may impose a harsh monotony on the sides of skyscrapers does not blur the satisfactions of the technological mind. In 1922 Mies van der Rohe showed how this utilitarian device could be made continuous around the periphery of a building; the result, writes Philip Johnson, was an apotheosis of a ribbon window. But from an apotheosis the ribbon window descended rapidly to a cliché, from a cliché to a standard, and from a standard to a sterility. The new office buildings which are rising along Fifth Avenue, like weeds in an old-fashioned garden, are wreathed with that "rational aesthetic."

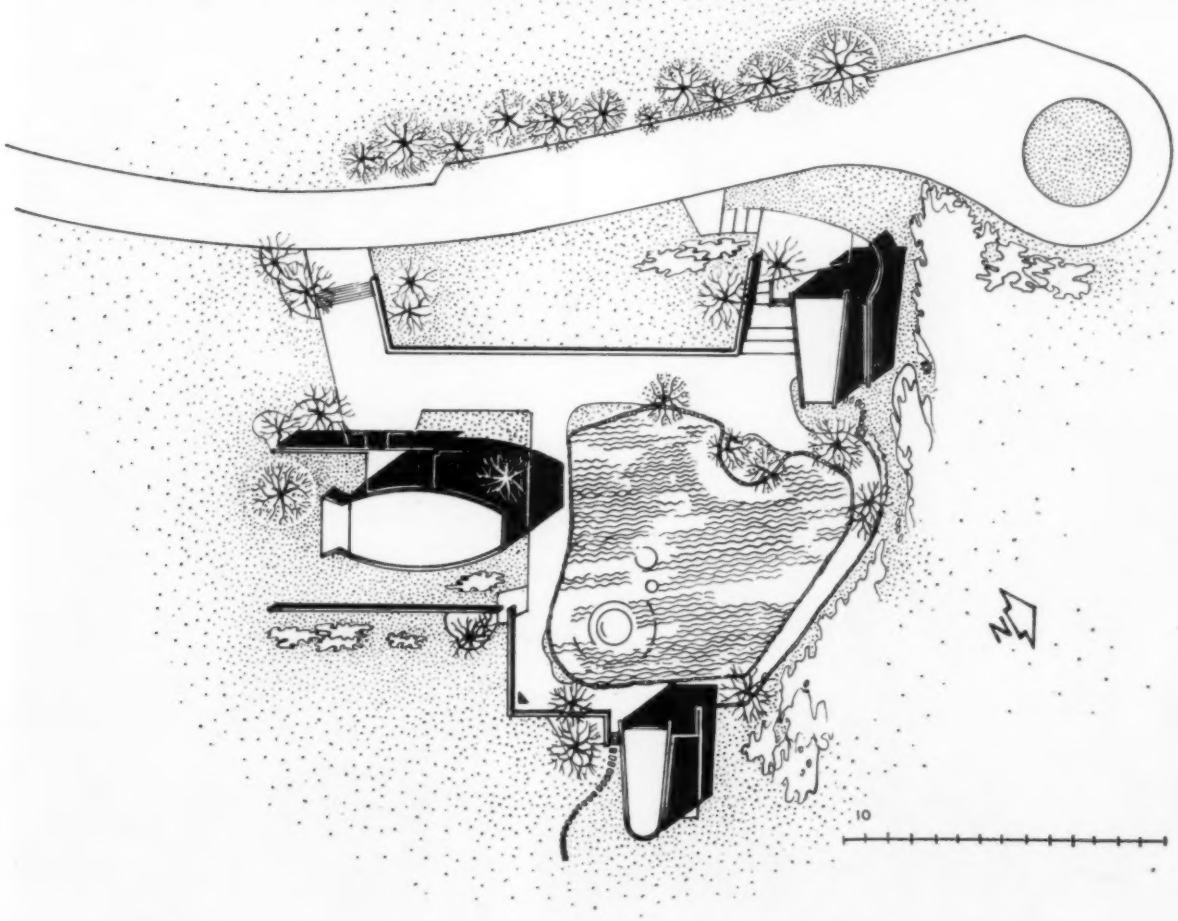
These office buildings are themselves standards, and in that respect they do not differ from the majority of our building types. A hotel in Miami is like a hotel in Santa Barbara and that "miraculous mile" proposed for Chicago cannot be distinguished from the miraculous mile-and-a-half to be built in Philadelphia. I suppose that standards are inevitable when governmental agencies undertake the guidance of architecture. When, for example, Washington decided to assist the building of hospitals throughout our land, architects found that they had little to do other than to please themselves with the color of brick. Standards in school house design, formulated by state authorities, are frozen into law in order to defend our children from the imaginations of architects; church designs are furnished by church bureaus at small expense complete with appropriate sentiment; and small town banks receive the plans for their buildings as a premium in the purchase of marble counters. It is quite impossible to tell the split-level ranches and expandable cods of Dallas from those of Wellesley Hills; and as for the homes of the poor (I mean the lower income group) — with all our humanitarianism these have not relinquished their ancient title to dreariness. It is pleasant to remember that there are romances in these boxes.

* * * * * * *

The role of engineering is one of great dignity and splendor. It is not surprising that architects, considering the circumstances of their time, should wish to assume that role and in so doing participate more urgently in that conquest of nature which is the magnificent event of contemporary life. It is an infinite satisfaction to know that the techniques of building are employed in the cause of human liberty.

Nevertheless there still exists another and ancient need which architecture may yet satisfy. I mean of course the need of expression: of holding before men the true and enduring content of their civilization of which technological thought and achievement are consequences, not causes. Beneath these outward trappings we are still Hellenic and Christian — more Hellenic, I think, than the Athenians, more Christian than the Crusaders. Our architecture will ultimately return to these enrapturing springs.

AN UNUSUAL DESIGN FOR COLLEGIATE RELIGION



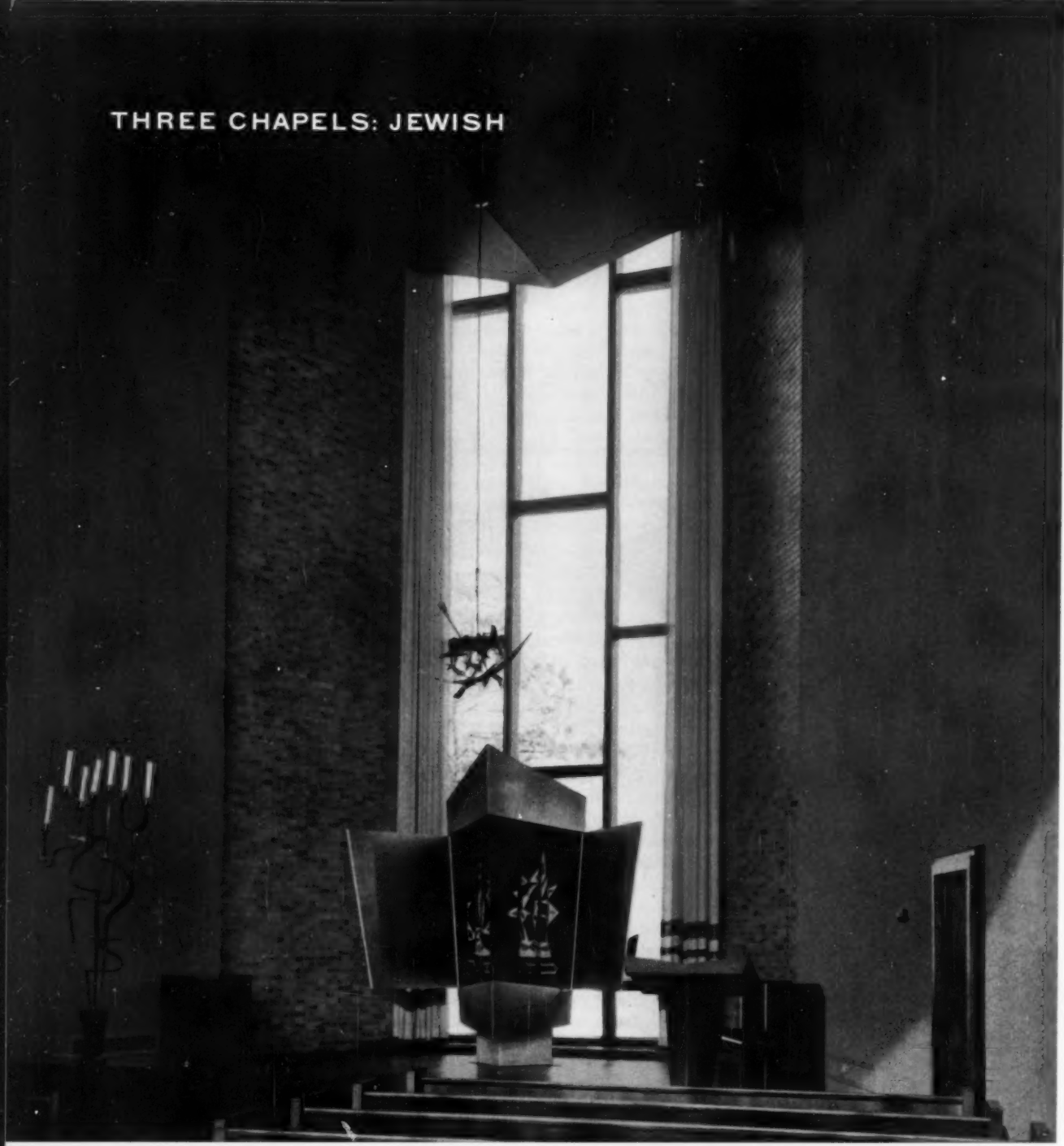
Drawings by Thad Leski of Harrison & Abramovitz

Interfaith Center, Brandeis University, Waltham, Mass. *Harrison & Abramovitz, Architects*

Structural Engineers — *Eipel Engineering;* Mechanical & Electrical Engineers — *Sears & Kopf;* Utilities Engineers — *Linenthal & Becker;* Acoustical Engineers — *Bolt, Beranek & Newman;* Lighting Consultant — *Lighting by Feder;* General Contractor — *Lilly Construction Co.;* Interior Consultant — *Alice Tiebout;* Sculpture (Eternal Light & Menorah) — *Herbert Ferber;* Ark Curtain — *Design, Mitchell Siporin — Execution, Helen Kramer;* Ark, Lecterns, Furniture — *built by Jens Risom;* Religious Appointments *executed by Rambush.*



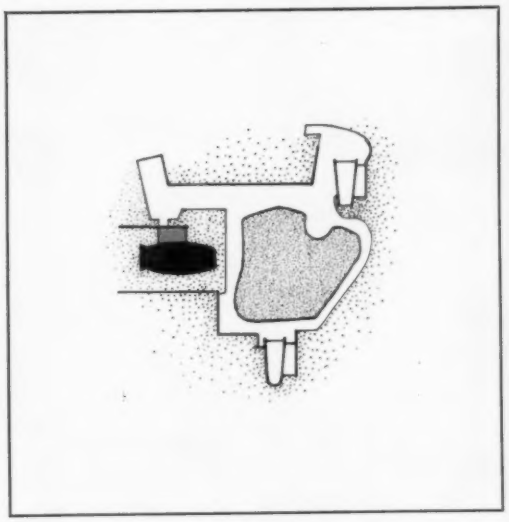
THREE CHAPELS: JEWISH



Architect Max Abramovitz says:

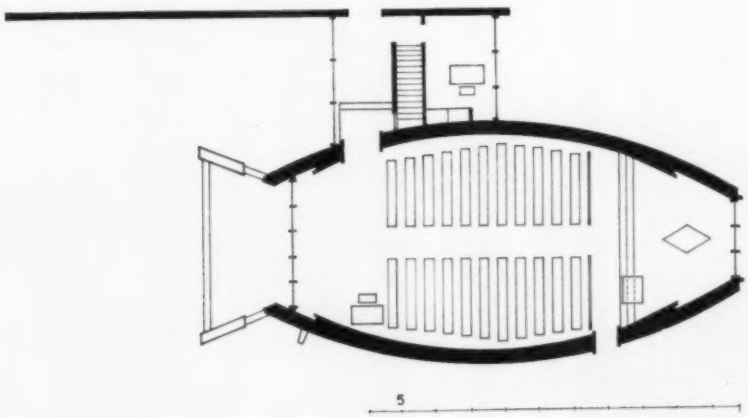
"Following the development of a program at Brandeis University to provide equal and distinct facilities for the Catholic, Protestant and Jewish faiths, it became apparent after many studies that the best solution would be three distinct structures — not one with subdivisions or movable appointments within. Each group would then have its own atmosphere and quality — possible only with special attention to individual space and concern for specific religious ritual and procedure. Thus developed the idea of three chapels grouped about apond, adjacent to a growth of trees. The composition permits a view of each building in relation to the other, as well as a vista from the campus proper.

"Although varied in shape and design — expressive of the peculiar characteristics and functions within — a feeling of unity and neighborliness was provided by



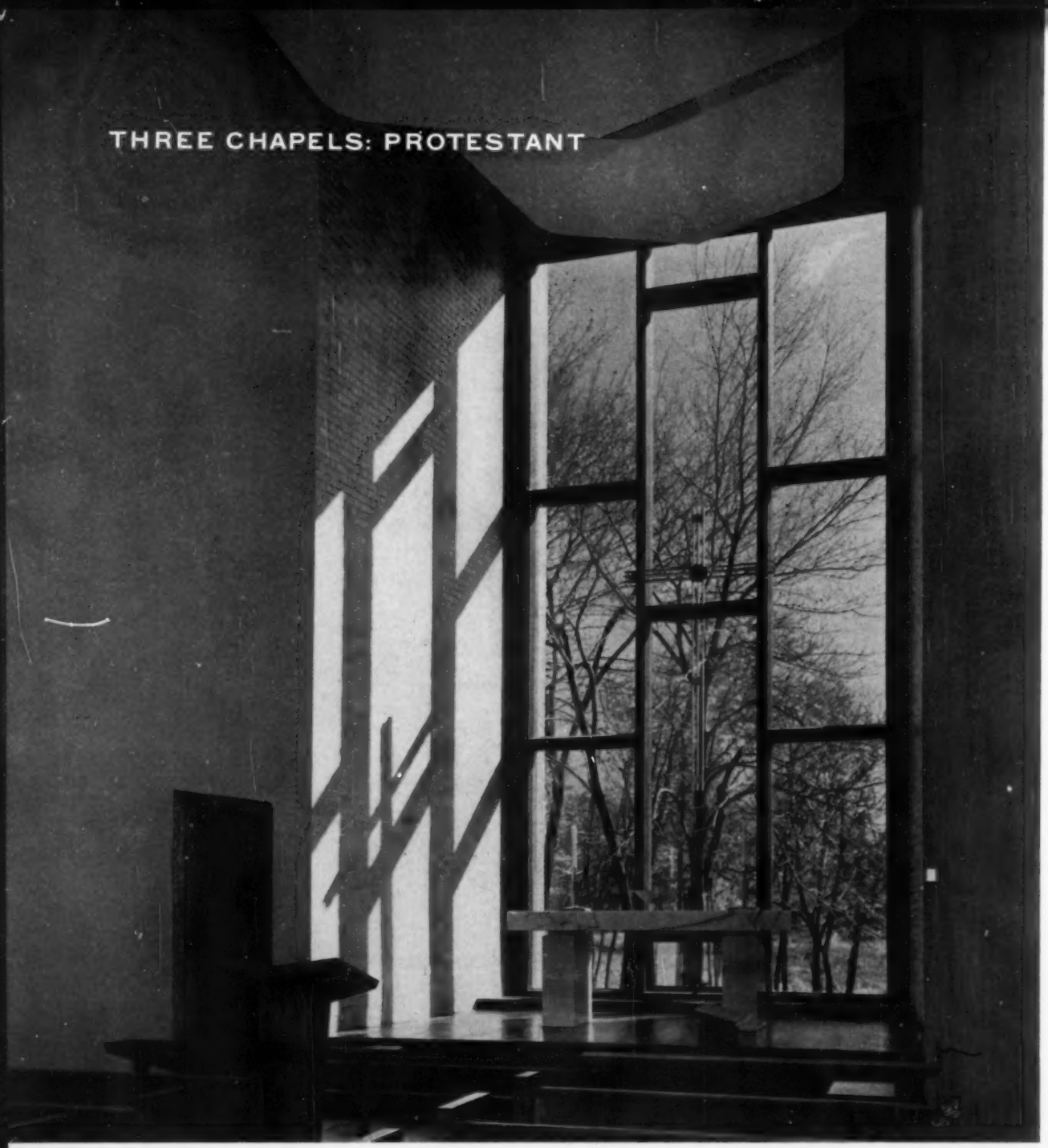


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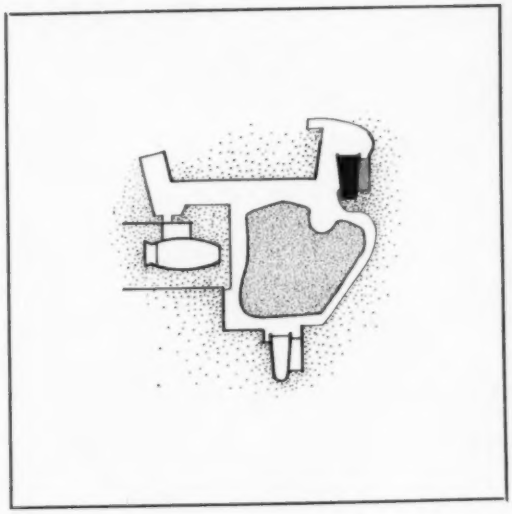
THREE CHAPELS: PROTESTANT



Max Abramovitz:

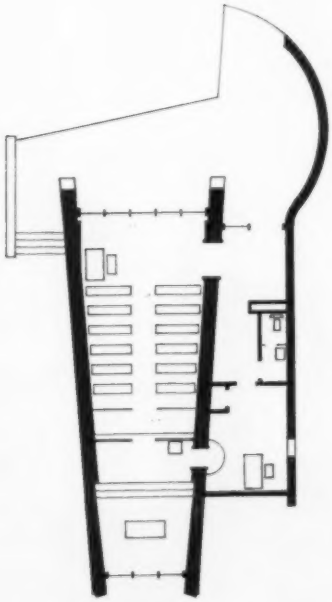
using similar materials and a like character throughout. Competition was avoided by an absence of exterior symbolism — yet individual identification becomes apparent to one strolling about the pond. There is the Ark form in the Jewish chapel; the Communion table in the Protestant chapel; the Altar for the Catholic chapel — all readily apparent through the plate glass and wood screens that open to the pond.

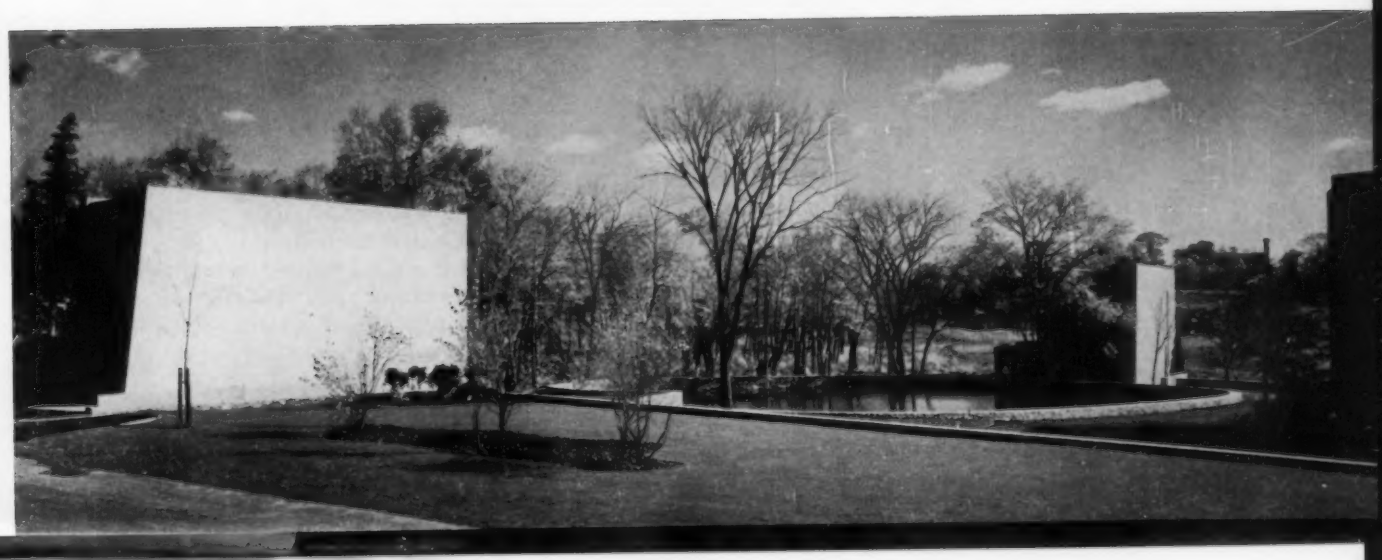
"The Catholic chapel is round-ended. The enclosed east end envelops the ritual of the high Mass and helps achieve a low lighting level; the open, glass-walled west end reveals the altar from without. The Protestant chapel is of bold trapezoidal shape with glass and white-oak end walls, the walls focusing on the Communion table and sky beyond. The Jewish chapel is formed of two solid curved screens of brick with end walls of oak

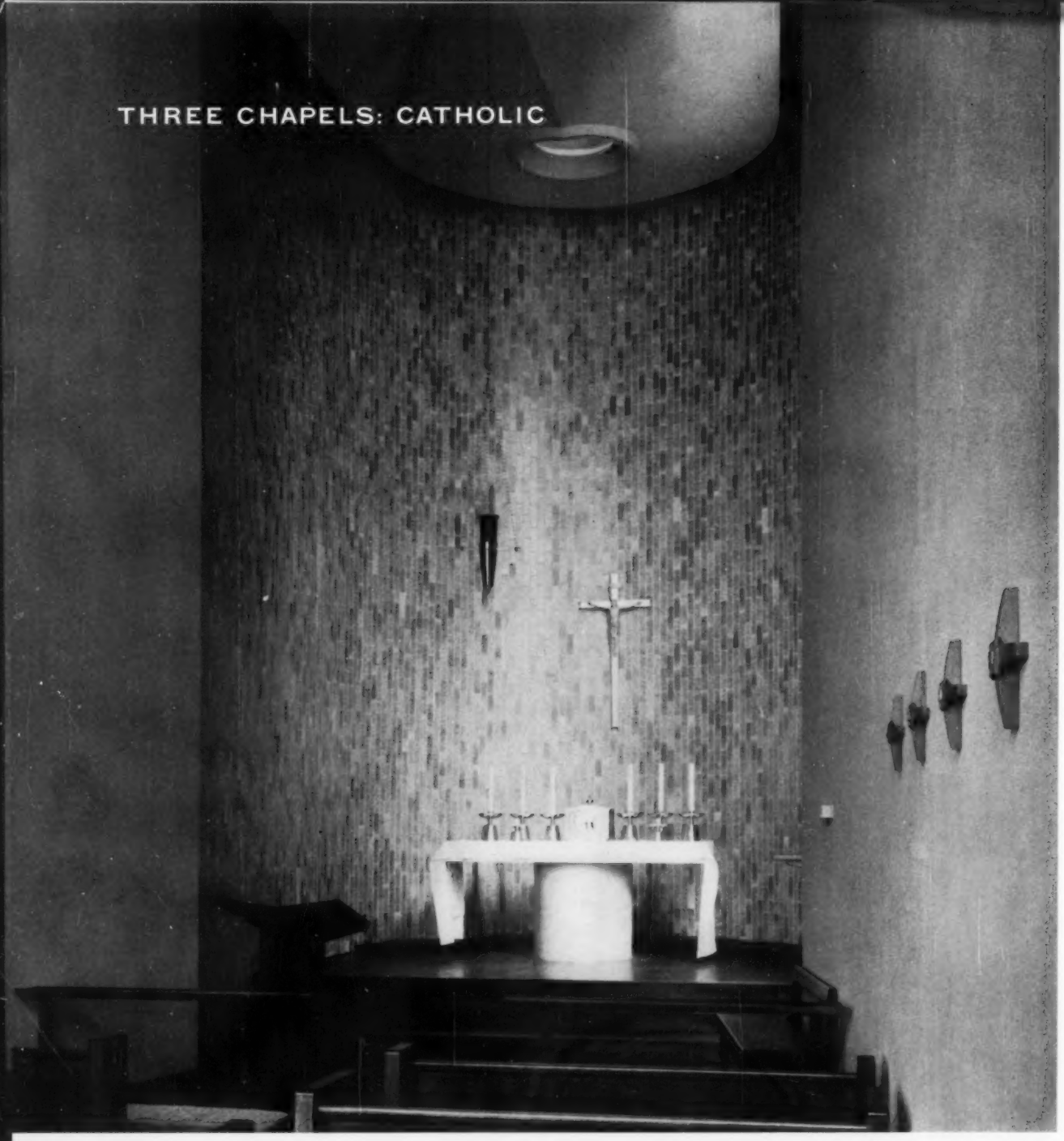




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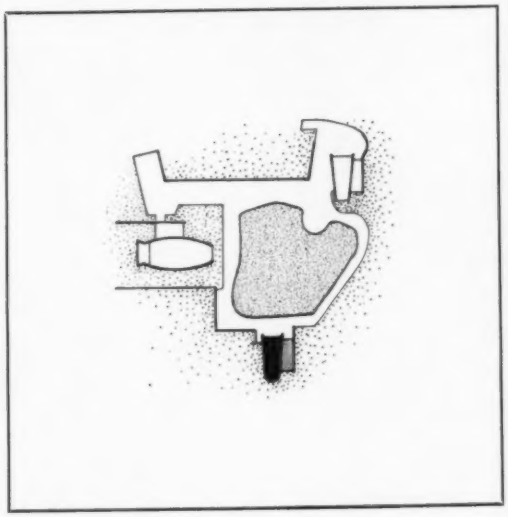


Max Abramovitz:

and glass, yielding a view through to the Ark and the grouped trees beyond.

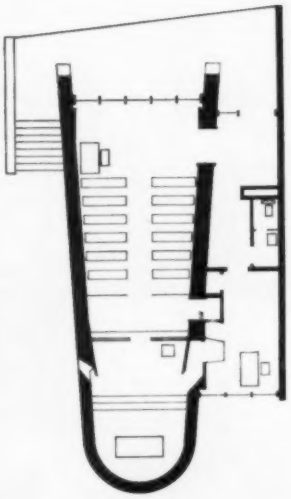
"Architecturally, the aim was to develop a special atmosphere within the group which would set it apart from the academic buildings and develop an inner mood associated with today's three major faiths.

"The ceilings are visually separated from the walls for a floating effect, which is furthered by side-lighting for an impression of airiness. They also slope downwards toward Altar, Communion table or Ark to accent the focal points for each of the faiths. The floors are all of dark oak planking, and the end screens uniformly of natural finish white-oak and polished plate glass for exterior unity. Great care was taken in both the design and execution of the ritualistic furnishings, executed by leading artists."

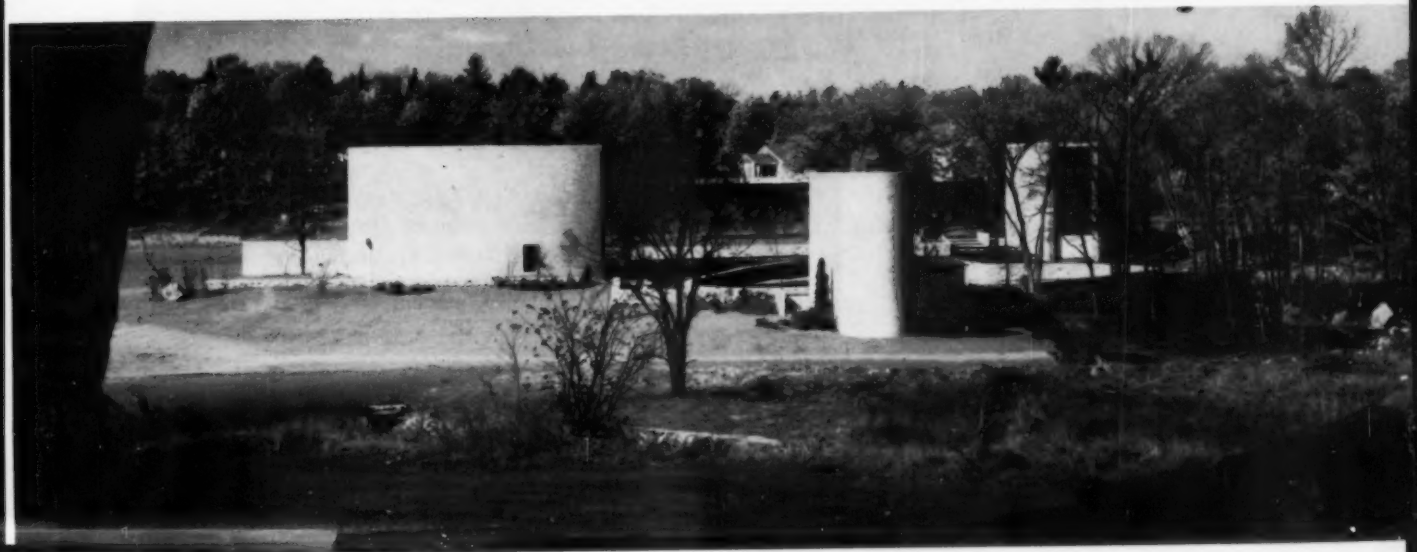




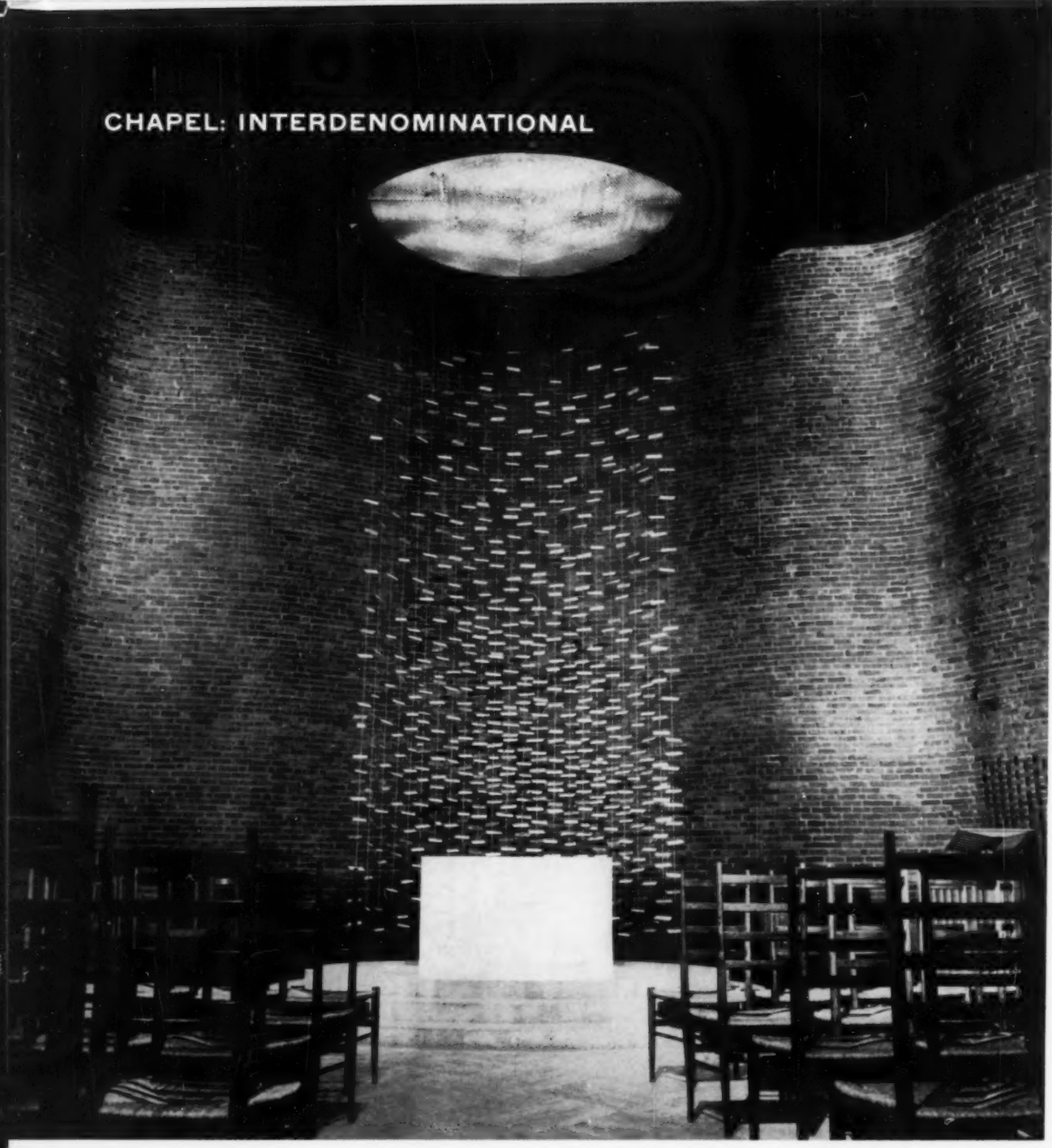
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5



CHAPEL: INTERDENOMINATIONAL

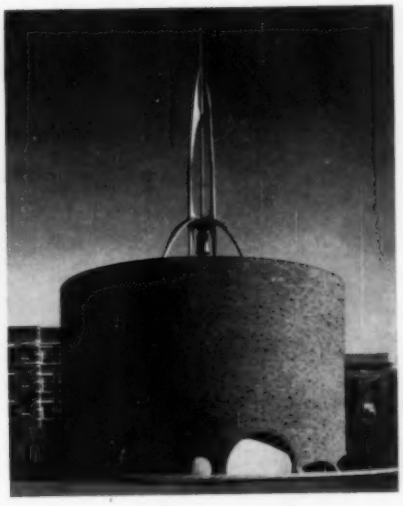


Eero Saarinen and Associates, Architects
Anderson and Beckwith, Associate Architects
Ammann and Whitney, Structural Engineers
Hyde and Bobbis, Mechanical and Electrical Engineers
Bolt, Beranek & Newman, Acoustical Engineers
George A. Fuller Company, General Contractors

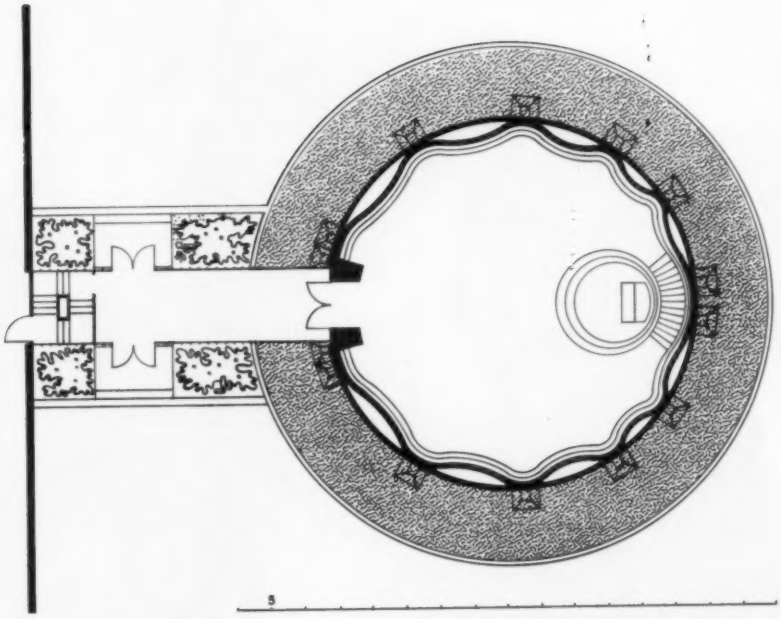
EERO SAARINEN was asked to design M.I.T.'s Kresge Chapel to serve the needs of Jewish, Roman Catholic and Protestant faiths. The hemmed-in site on the West Campus was almost as difficult as the program. The final building is a clear response to both.

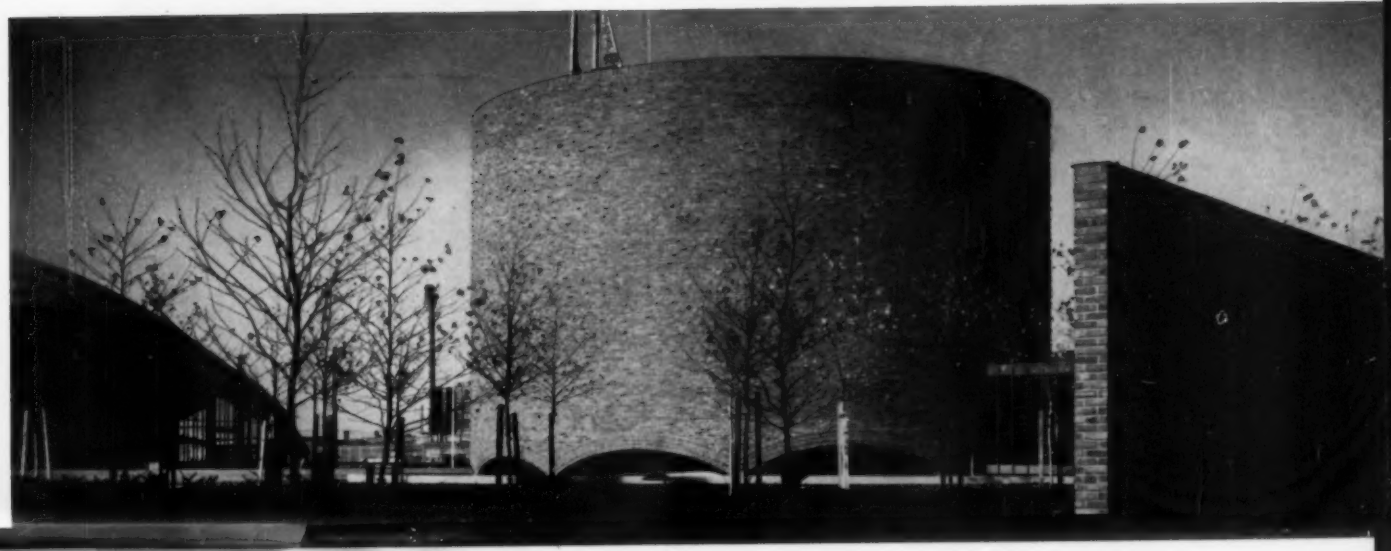
The architect, in effect, was asked to resolve differences historically unresolvable in terms of architectural space and form. The resolution has been made in



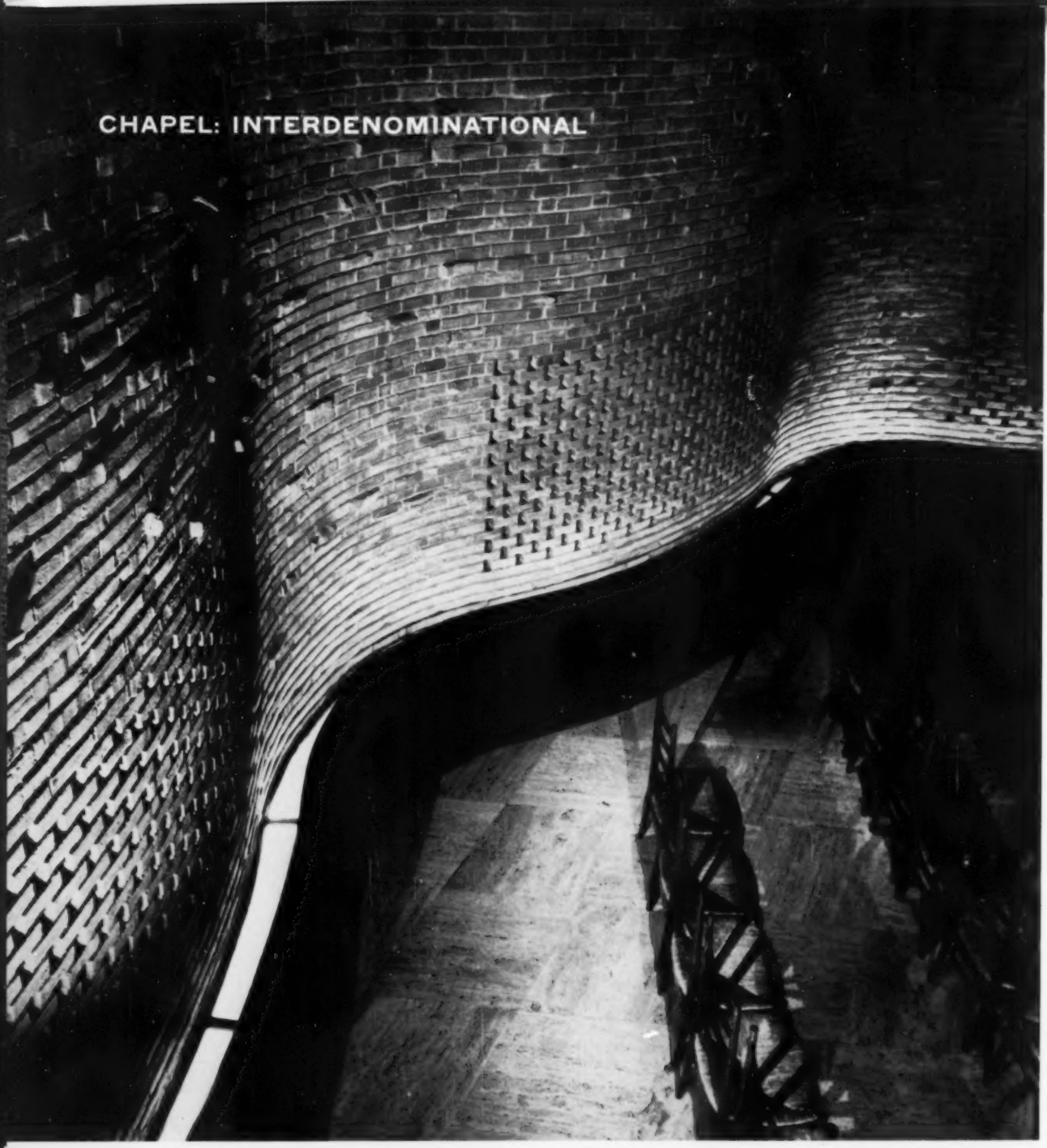


Ben Schnall





CHAPEL: INTERDENOMINATIONAL



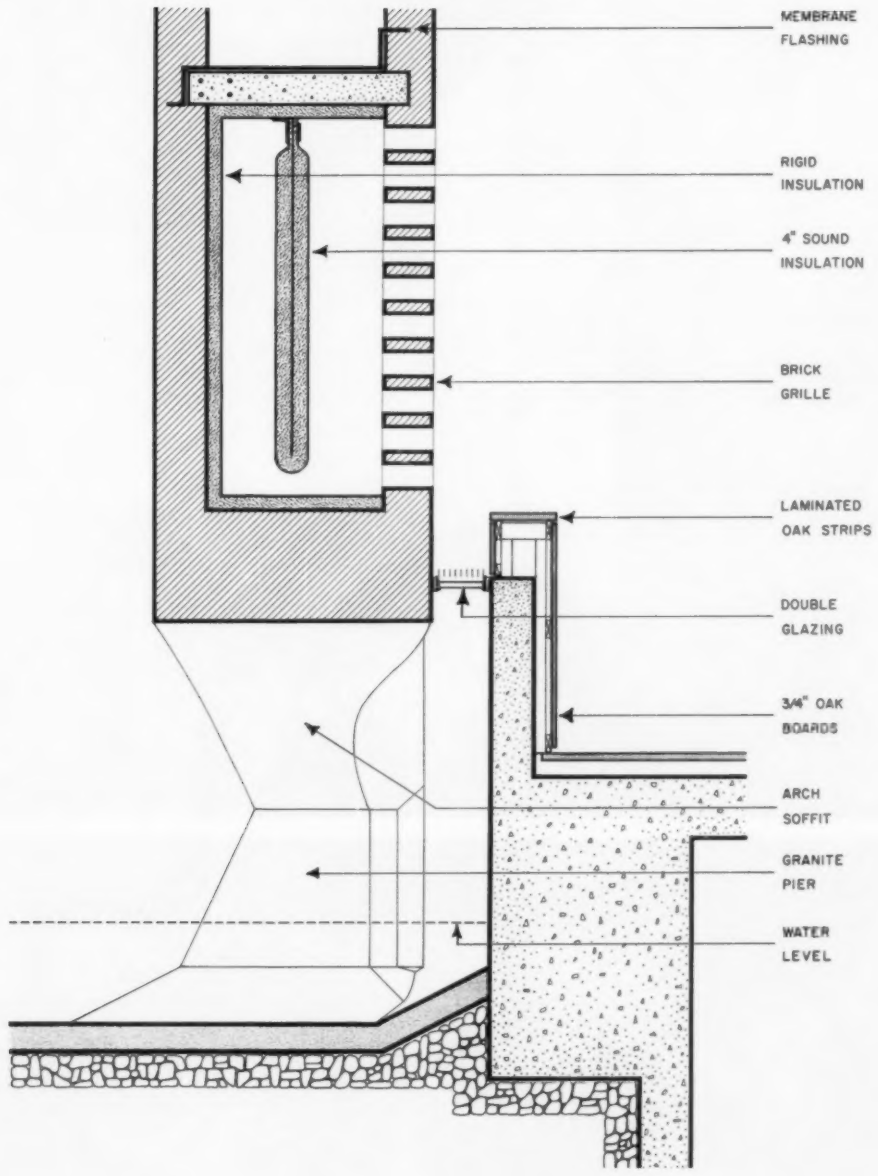
M. I. T. Chapel

terms of the least common denominator, and in this moated, windowless structure of simple shape, the high sense of removal and calm necessary to meditation has been achieved.

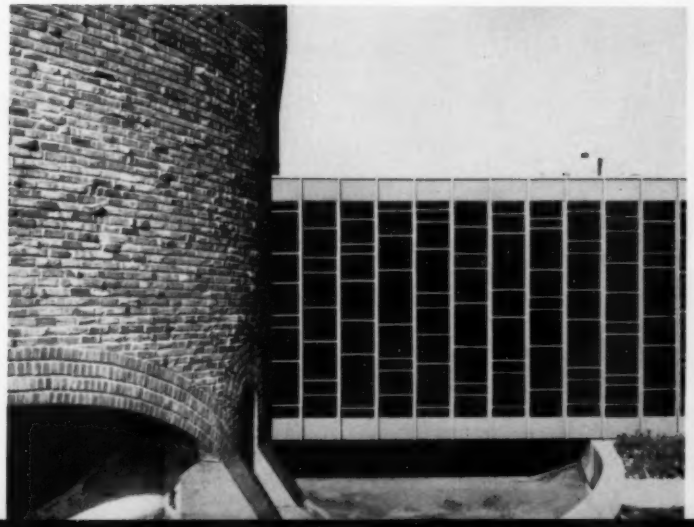
Natural light enters the chapel through a honeycombed baffled lantern and through a ribbon of horizontal wainscote glazing (see detail). Reflected upward from the water, this light plays on the brick surface of the inner wall which undulates irregularly to prevent acoustical focus. The shallow inverted cone of the suspended plaster ceiling and the brick grillwork of the lower walls are also in response to acoustic determinants.

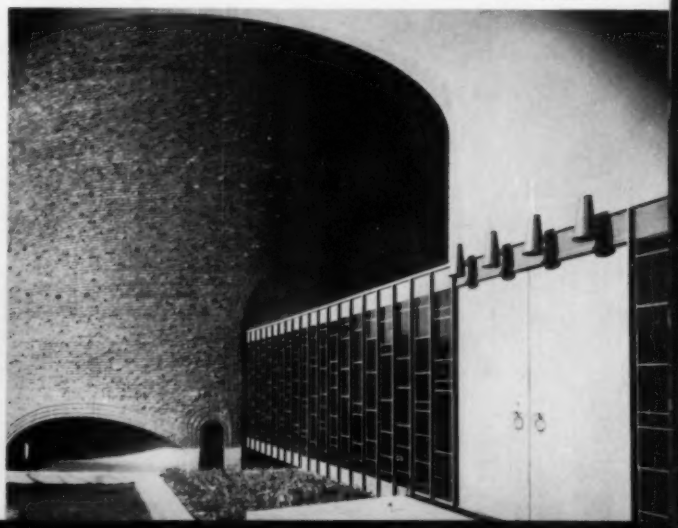
The gilt metal screen behind the marble pedestal is by Harry Bertoia. The aluminum spire is by Theodore J. Roszak.

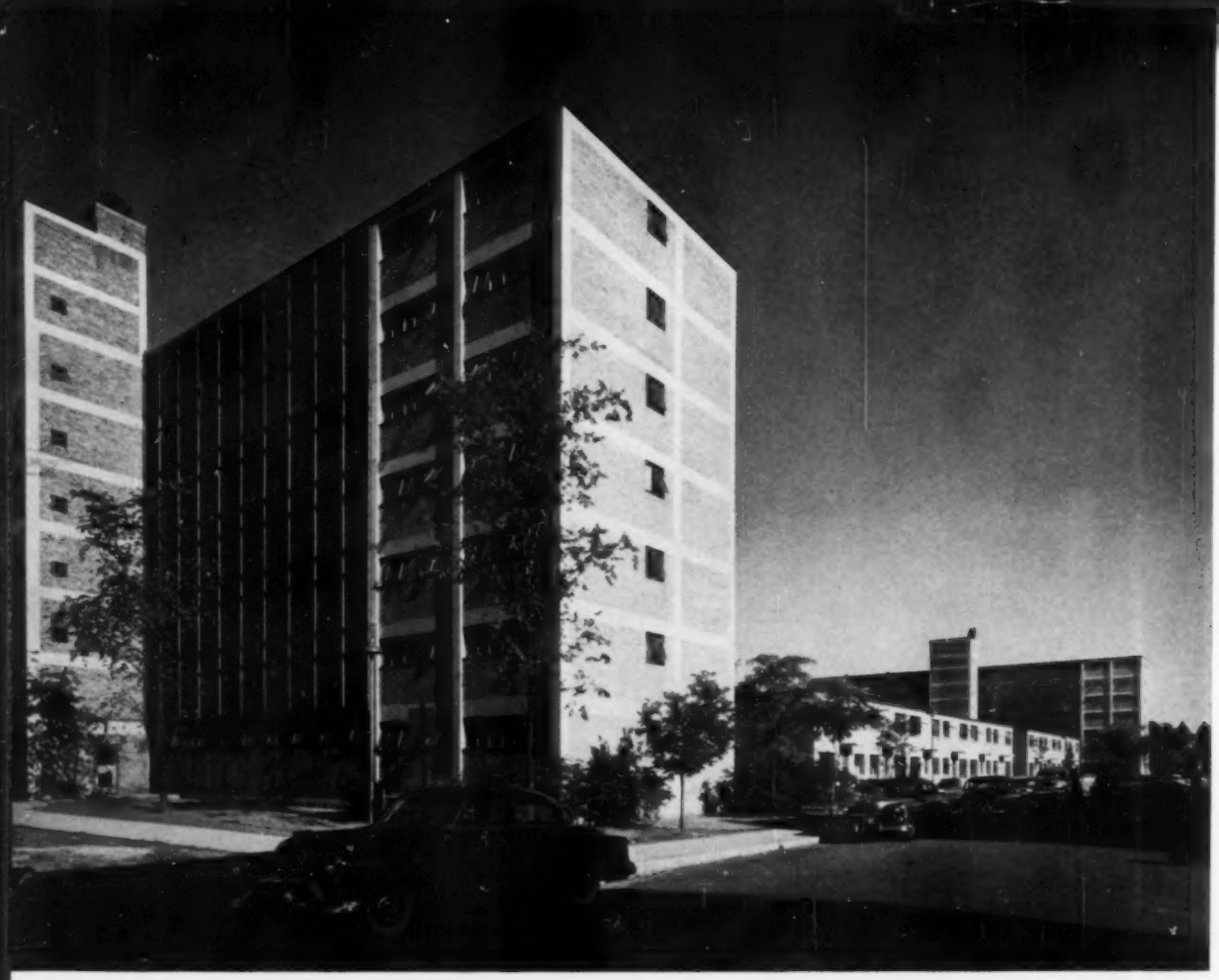
Brick is red; narthex glass is leaded, gray antique.

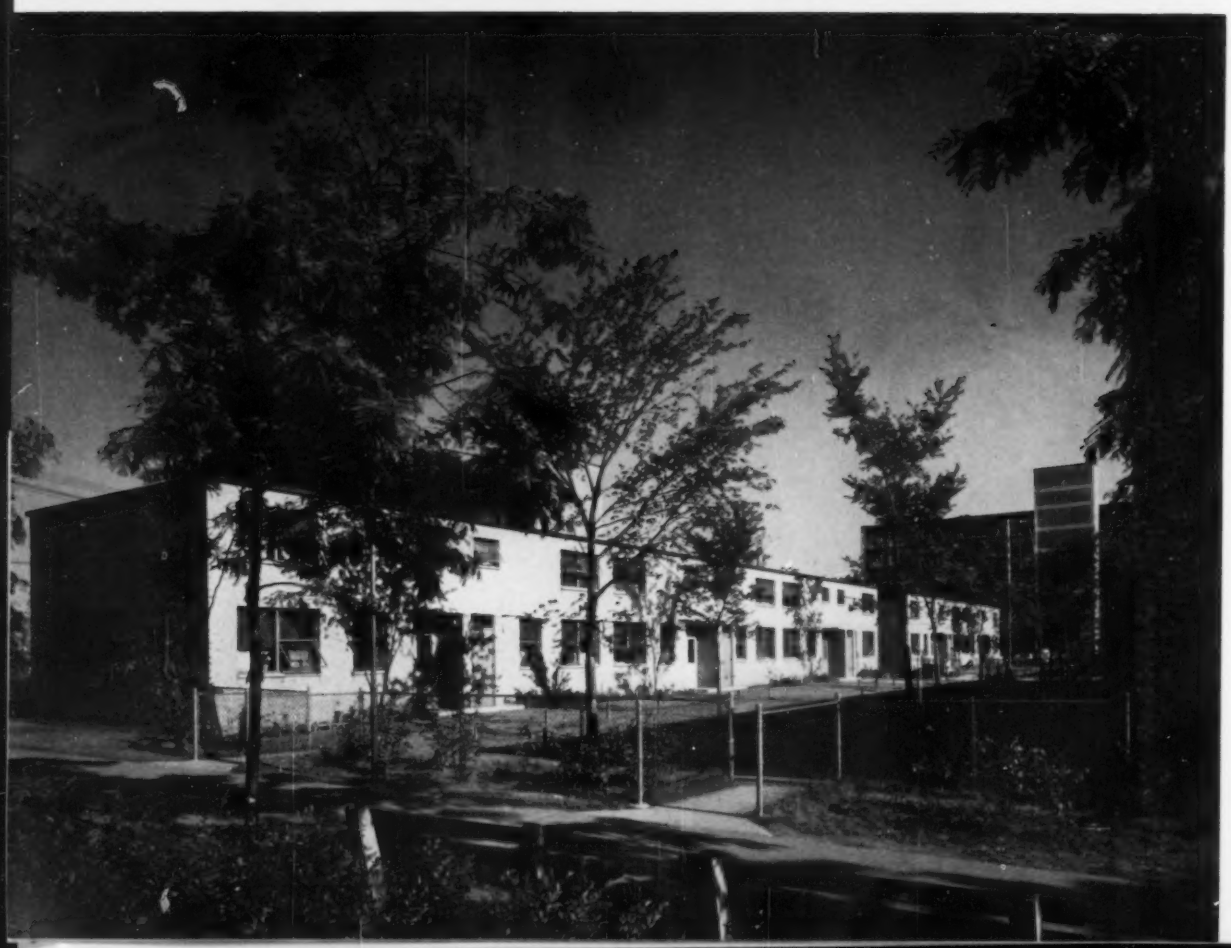

MEMBRANE
FLASHING
RIGID
INSULATION
4" SOUND
INSULATION
BRICK
GRILLE
LAMINATED
OAK STRIPS
DOUBLE
GLAZING
3/4" OAK
BOARDS
ARCH
SOFFIT
GRANITE
PIER
WATER
LEVEL

Ben Schnall









Prairie Avenue Courts, Chicago

For Chicago Housing Authority

George Fred Keck — William Keck, Architects

Samuel R. Lewis & Associates, Mechanical Engineers

Frank J. Kornacker & Associates, Structural Engineers

W. G. Atkinson, Landscape Architect



Hedrich-Blessing

ARCHITECTURAL CONCEPTS OF HOUSING PROVED VALID

AS PUBLIC HOUSING this project has won enthusiastic kudos. Observers stress the avoidance of a standard type of building, with standardized units and thus standardized occupants. In the variety of buildings — fourteen-story, seven-story and two-story apartments and row houses — there is a variety of accommodations, ranging from one to four bedrooms. Automatically then the project attracts diversified family groups and has a natural and stable neighborhood cohesion.

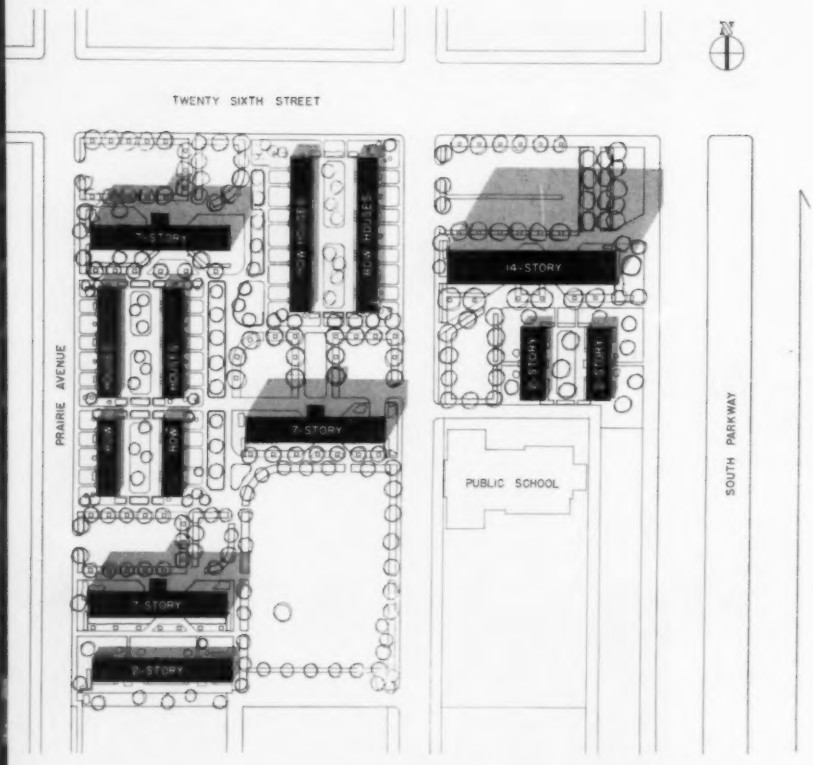
These facts alone would be sufficient to earn for it a high rating among public housing projects, but architects will be quick to note attractive concomitants. The variety of buildings has much stronger appeal than can be stated in statistics of family groups. It obviates the deadly monotony of so many apartment projects, the filed-away feeling. There is contrast, there is composition, there is form and mass and shadow. There is change in the lawns, playgrounds, parking spaces. If there is economy in the building of it, and there is, there is denial of what Dean Hudnut (page 139) dubs the "ancient title to dreariness" of housing for the lower income groups.

This achievement was not accomplished without some struggle. There were those who argued against the tall building, others who did not like the row houses. And, no doubt, there were some to whom the mere fact of variety seemed radical. But the architects' persistence was not to be denied, and in the end it makes Prairie Avenue Courts a noteworthy proof of the validity of architectural thinking.

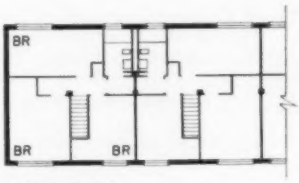
Notice (site plan, next page) that the disposition of buildings follows a shadow pattern. Careful studies were made of sun angles throughout the year to minimize the shading of one building by another. The heaviest shadows fall on the parking lots, the least on the playgrounds and buildings.

The architects explain that the overall pattern of accommodations makes no claim of universal applicability; it was dictated solely by needs of the city's public housing program. A secondary consideration was that there was to be a minimum of dislocation of families during the construction stages. It is important, nevertheless, that the pattern did meet the specifications as to population density.

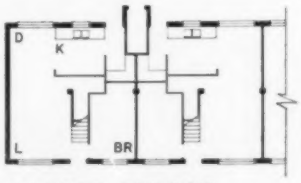
Economy was a major consideration in design; exclusive of land the average cost per family unit was $8500. The high-rise buildings are of reinforced concrete, with exterior walls of hollow brick and concrete block construction. Low buildings follow the same construction except that walls are load bearing. There are no plaster walls in the project; interior partitions are of lightweight concrete block, painted.



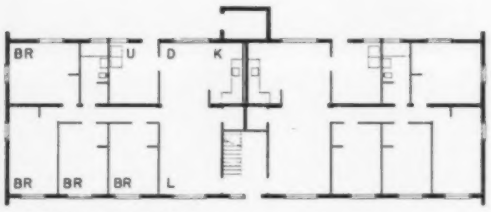
Variety of buildings sizes and types makes Prairie Avenue Courts a real neighborhood, not a human filing system. There is one 14-story building, three 7-story buildings, three 2-story apartment buildings and six row-house groups. The buildings are placed for the least shading of each other; heaviest shadows fall on parking lots



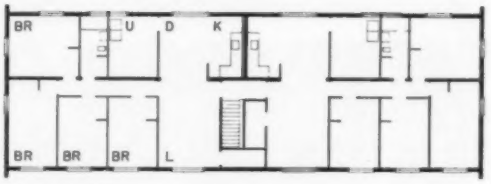
SECOND FLOOR



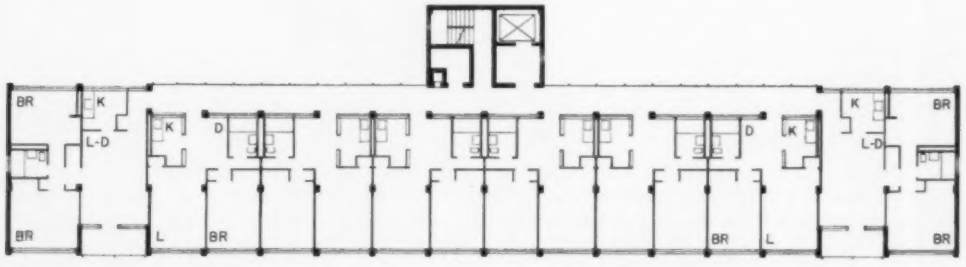
ROW HOUSES FIRST FLOOR



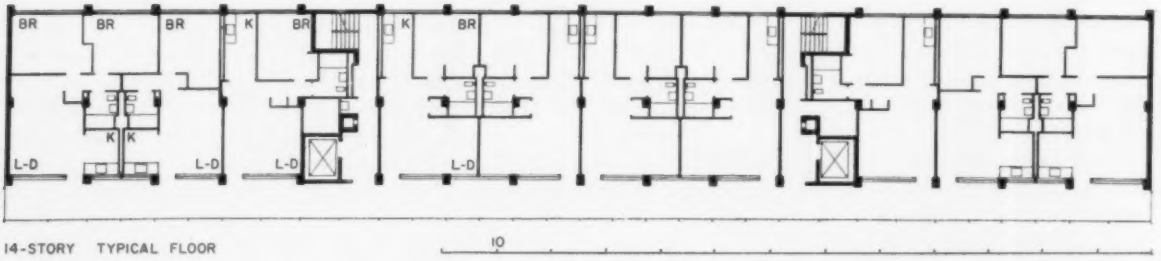
2-STORY FIRST FLOOR



SECOND FLOOR

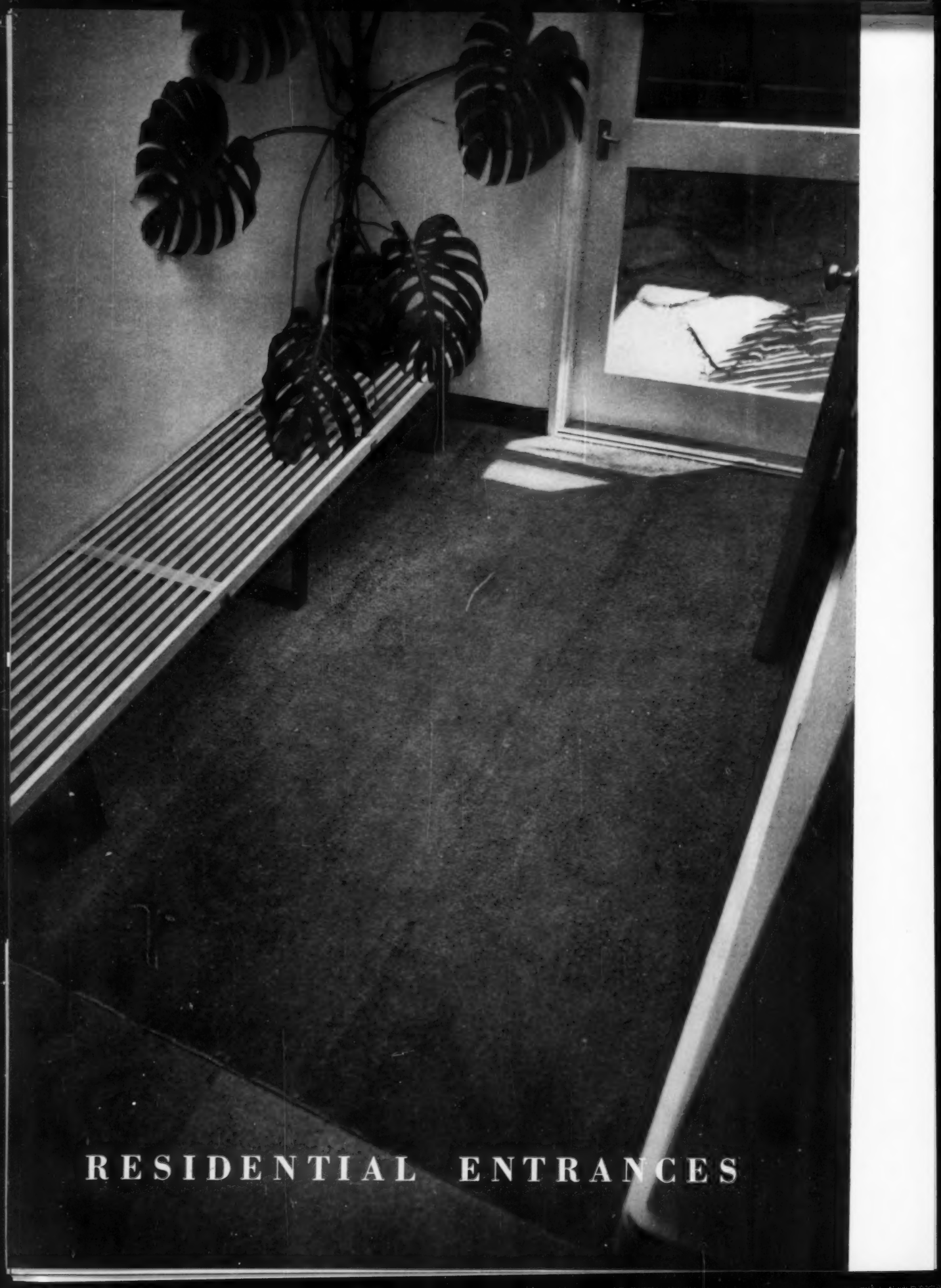


7-STORY TYPICAL FLOOR



14-STORY TYPICAL FLOOR

Hedrich-Blessing



RESIDENTIAL ENTRANCES

Highland Park, Ill.

A. James Speyer, Designer
George E. Danforth,
Associate Architect

Tom Yee photos



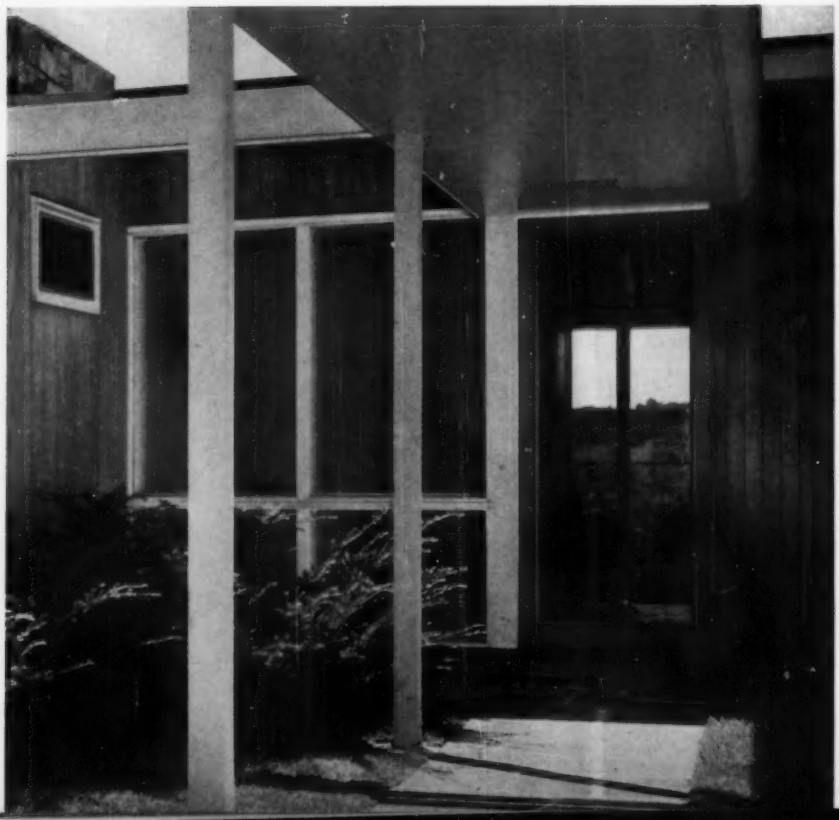
Opposite: Hanover, N. H.: E. H. & M. K. Hunter, Architects; Joseph W. Molitor photo



Shrewsbury, Mass.

Carl Koch & Associates, Architects

©Ezra Stoller photos





Stamford, Conn.

Huson Jackson, Architect

Louis Reens photos



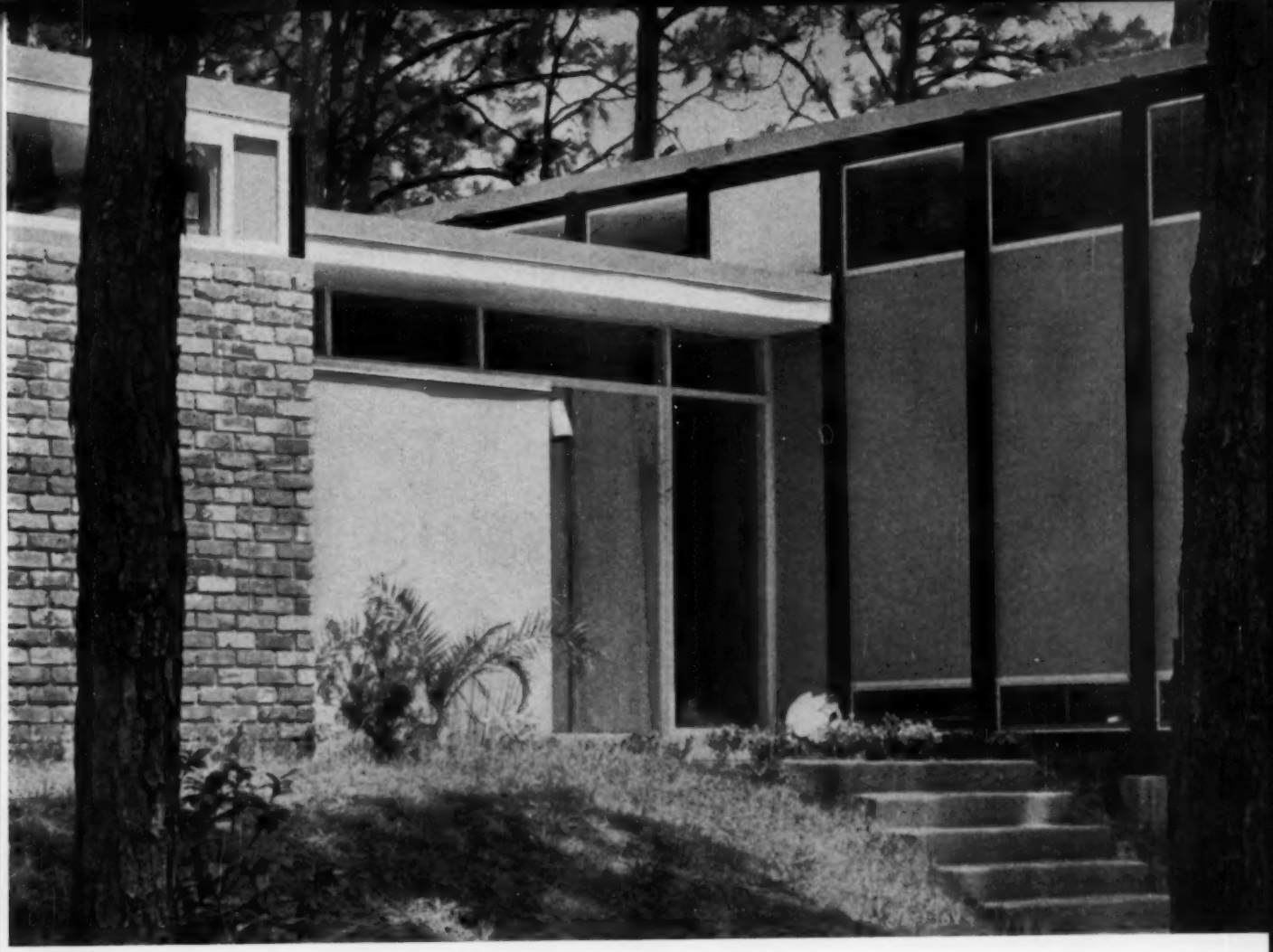


Spokane, Wash.

McClure & Adkison, Architects

Dearborn-Massar photos





Pascagoula, Miss.

Curtis & Davis, Architects

Ulric Meisel photos





Baton Rouge, La.

John W. Lawrence,
Sam T. Hurst, Architects

Joseph W. Molitor photos



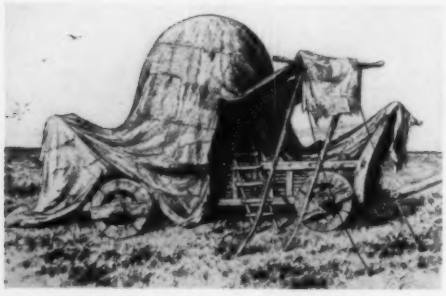


Hanover, N. H.

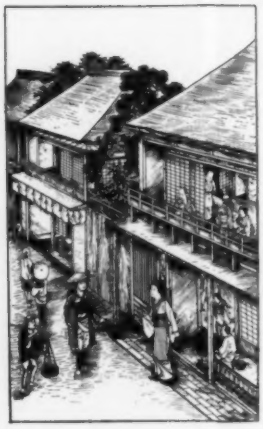
E. H. & M. K. Hunter,
Architects

Joseph W. Molitor photos





Wagon-mounted tent of the wandering Huns (Bettman Archive)



Even the town-dwelling Japanese had roadside hotels (Culver Service)

LODGINGS FOR TRAVELERS

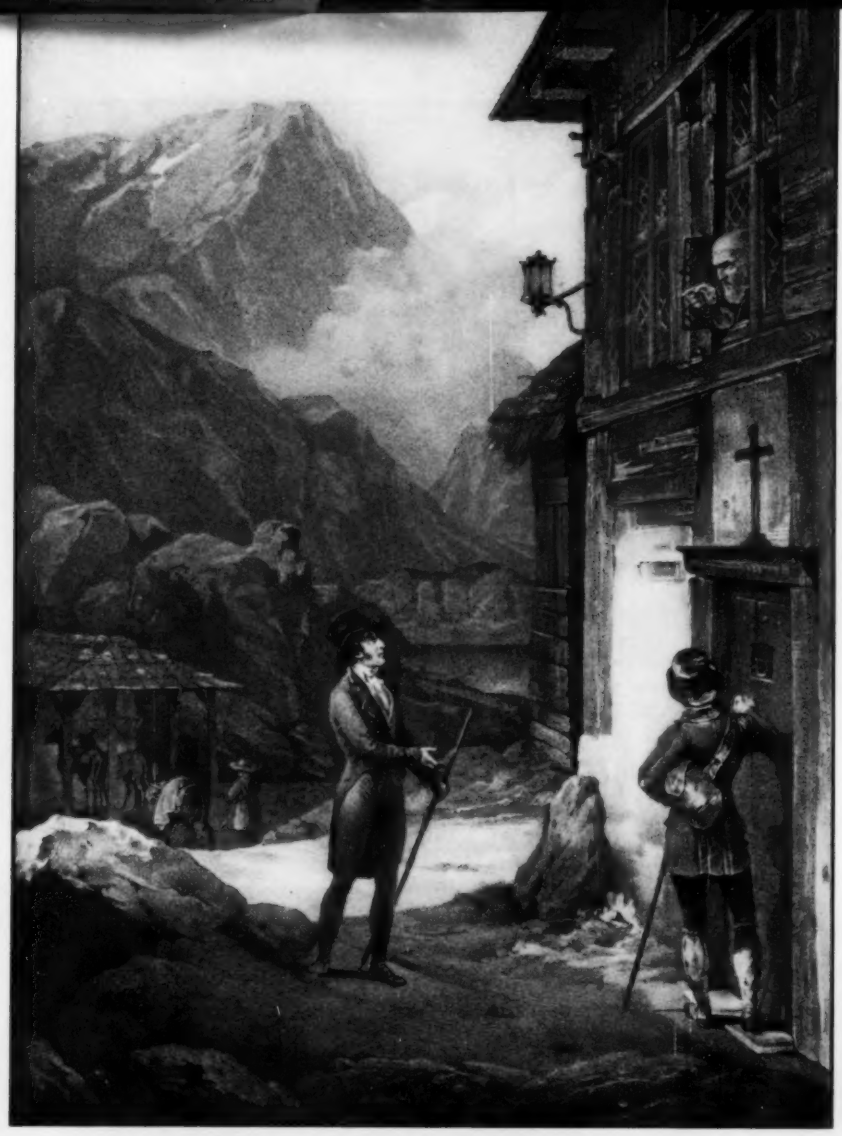
COMPARED TO the modest hostelries of earlier days, the lodgings we now provide for travelers are very big business indeed. Another comparison: in 1939 Business Census reports listed 13,521 tourist courts and 27,987 hotels; the totals today are reliably estimated to be 56,000 motels — successors to the "tourist court" title — and just over 30,200 hotels. Nowadays motel rates are not low, yet the demand grows and more and more profitable motels are built. There can be only one reason: more travelers want the kind of facilities the motel provides.

If proof is needed it can be found in the sum of a number of apparent trends. One of the soundest seems to be the emerging highway hotel, in which refinement and quality of design, construction, equipment, type of facilities, operation and service spell permanence, stability and continued well-paying patronage. Often highway hotels are run by dyed-in-the-wool experts, men who after years spent learning the hotel trade have seen horizons beyond the downtown commercial hotels' limits and have enthusiastically embraced the new opportunities. Nearly half the high-quality motor hotels, we are told, are operated by hotel men or owned by hotel capital.

Another publicized development is the downtown motel, possibly of less certain long-term worth though at present apparently profitable. Since it is smaller than the big commercial hotel it has some of the intimate appeal of the highway motel; but high land costs force it into a multi-story pattern and raise parking problems which highway sites

NATURE OF LODGINGS PARALLELS FORM AND PURPOSE OF TRAVEL

Historically, the form lodgings en route has taken has developed to accommodate the needs of the common method of travel. Examples both earlier and later than those shown here abound: until fairly recent times the North African nomad carried as he moved from place to place the frame of a light shelter made of saplings bent and tied to a dome shape; over this skins and brush were placed. Compare these and the dome-tented wagons of the warring nomad Huns, above, with the spheres so painstakingly devised by Bucky Fuller for modern American military purposes! But travel for business or pleasure seems to demand more formal accommodations



The famous Hospice du Mt. St. Gothard sheltered the traveler of a later European day (Culver Service)

In the early 19th century, American travelers by Conestoga wagon or stagecoach stopped at country inns (Bettman Archive)



While on our Western frontier woodsmen found ruder accommodations (Culver Service)



Simpson House, formerly Seccomb Tavern, Medford, Mass., typical of more sophisticated Eastern inns, lasted through the day of the horse-trolley (Bettman Archive)





City hotels: New York's Grand Union Hotel catered to carriage trade; its site adjoined Grand Central Depot; the hotel collected rail passengers' baggage quickly and free (Bettman Archive)

LODGING TYPES AND TRAVEL NEEDS

From pioneer days through the era of the horse and buggy the country inn changed little; railroads carried people from city to city and those who traveled by wagon train camped at night. But in the city great hostelries rose, their locations and their nature dictated in some part by the mobility of their patrons. Thus the Plaza could be built next to New York's Central Park, far from transportation, business or amusement centers, only because the automobile had come to stay. As paved roads and cars invaded the countryside tourist cabins rose. Once transient facilities, they have often become terminal resorts; and now we have motels at airports for the convenience of delayed air travelers



Today's motels: The Terrace, Atlanta, Ga.; Willner & Millkey, Archts. (Molitor)



Above, Airways Hotel at Buffalo, N. Y., Airport, Backus, Crane & Love, Archts.; below, Park Motor Hotel, Silver Spring, Md., R. S. Senseman, Archt.





Automobiles made hotels like New York's Plaza profitable (Bettman Archive)



By the mid-1930's tourist cabins began to spring up in rows across New England hay fields. Soon their banality led owners to strange lengths in the competition for travelers' attention, as in the concrete tepees below (both photos, Black Star)



To combat high cost of accommodations at resorts this cooperative motel-apartment-hotel was built recently at Fort Lauderdale, Fla., Robert Hanson, Archt. (Alexandre Georges)





"Tip End of the Season", an 1890 cartoon (Culver Service)



"Camp Grounds", Alton Bay, N. H., a typical religious retreat (Culver Service)

do not ordinarily cause. Again, "motels" are being built at airports for the comfort of delayed passengers; construction is less expensive than a hotel would be, and plane take-offs and landings necessitate height restrictions.

Nor do automobile travelers, whose increase has brought all this about (even the airport "motel" is reached on wheels!), any longer regard the roadside tourist cabin as merely an overnight convenience. Some years ago patrons began staying at tourist cabins for weekends and then for entire vacations. Today the motel, whether at a recognized resort or not, is likely to be both a terminal vacation spot and a tourist's temporary rest.

Commercial hotel operators have at times tried to fight the trend. Latterly they have turned instead to seeking ways to meet these demonstrated needs, and the devices for parking cars on land almost nonexistent, for making the tired, road-dirty traveler comfortable and inconspicuous, have sorely taxed their — and their architects' — ingenuity.

Behind the 31 per cent increase in motel construction reported by F. W. Dodge for the first 9 months of 1955, behind the numerous hotel modernizations, lies a huge increase in automobile use. Some 51,000,000 passenger cars owned by 35,000,000 families now travel our highways; 86 per cent of all U. S. travel is on the roads; 85.5 per cent of vacation trips are by automobile; 42 per cent of new car buyers use their cars regularly for business travel.

THE RETREAT FROM HOME

That well established American institution, the resort hotel, has begun to awaken to the impact of the automobile. Here it is not so much a matter of reducing expense to travelers as it is the necessity of providing comfort and above all convenience. The resort patron no longer arrives by train or even by chauffeured limousine; he wants the same mobility at a vacation spot that he has at home — perhaps more. Only the unique island in the Caribbean or the Great Lakes seems able successfully to buck the trend toward combining motel and hotel facilities



Seaside resort hotel of the '90s, its counterpart could be found in shore, mountain or lake country (Culver Service)

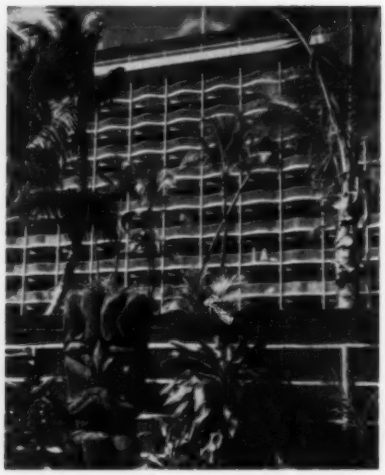


Above, one portion of the Golden Gate, new Miami Beach resort which also includes villas, motorists' accommodations, apartments, cottages, clubs; Igor Polevitzky, Archt.
Photo below: old Halcyon Hotel, Miami, Fla., when the auto was displacing the horse (Culver Service).



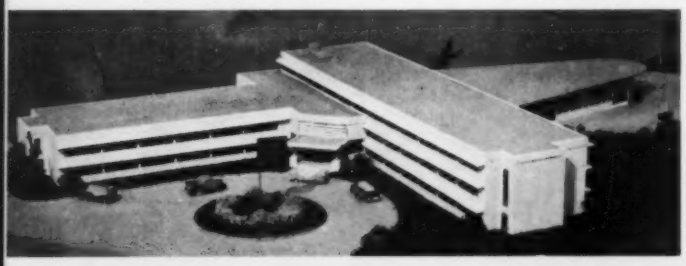
THE RETREAT FROM HOME

Whether a resort caters to the recluse, the explorer or the show-off, its patron does not expect to stay put after he has arrived. Even after a long trip by boat, train or plane, he's likely to hire a car and set out to see the countryside. At Lake Texoma, illustrated below, he'll hire a boat and go fishing, or a horse and go riding. Larger than the family camps that dot New England and other scenic areas, Lake Texoma's facilities consist primarily of a main lodge, numerous scattered cabins and a dining room seating 250; its ballroom will seat 500 at a banquet, 700 for a meeting, so it provides convention accommodations as well

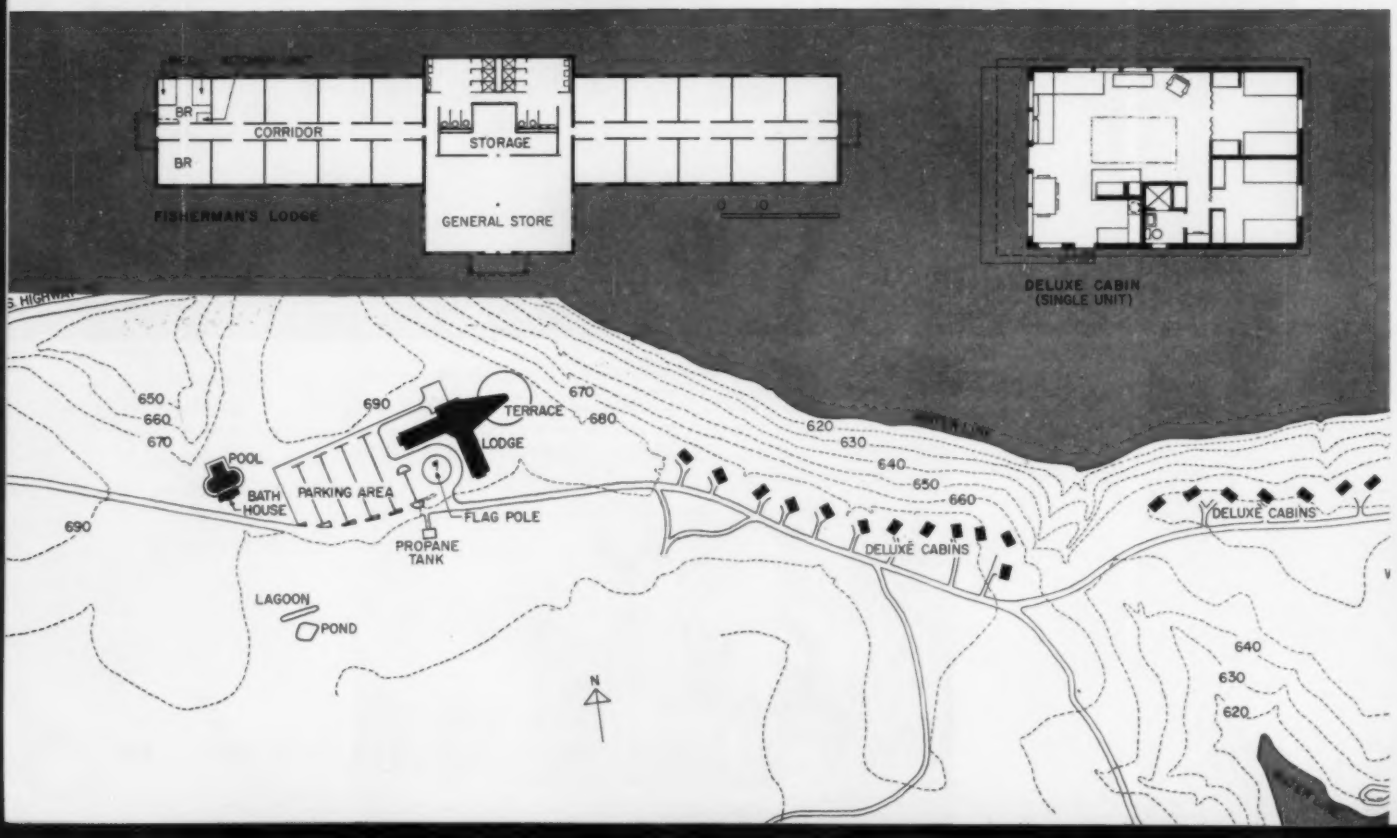


Shipping interests, too, find resort hotels profitable, above, Matson Line's Princess Kaiulani in Hawaii

Facilities at Lake Texoma State Park in Oklahoma include 106-room lodge (left), 30 de luxe cabins (exterior and interior below), 20 duplex fishing cabins, 20-room fishing lodge, numerous public areas.





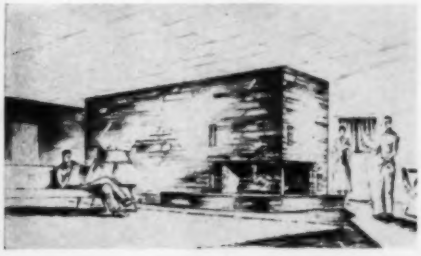






Small site and view caused elevated rooms at Seaboard Motel, an Ocean City, Md., resort. R. S. Senseman, Archt. (Fred Maroon)

services, etc. Dow Gumerson, Archt.





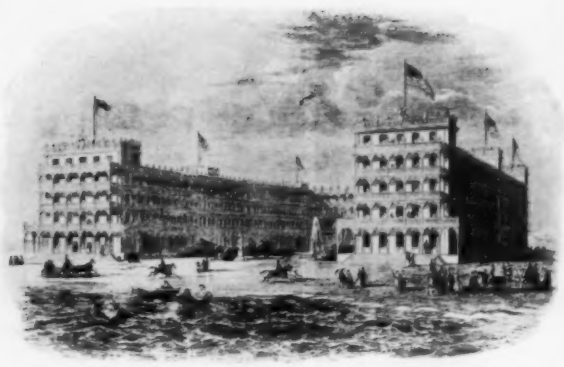
$300,000 Malibu Sands Motel, 34-room motel-apartment project, Malibu, Calif. A. T. Gilman, Archt. (Robt. C. Cleveland)







Rockbridge Alum Spring, Va., as seen in 1857 (Bettman Archive)



Mt. Vernon Hotel, Cape May, N. J. (Bettman Archive)

Motels cost a lot to build; hotels cost more, per unit or in toto. Figures are hard to arrive at because estimates of averages differ and because available valuations include establishments built in depression and prewar years when costs were much lower. The average capital investment in motels is said to range from $72,000 to $80,800; the average per room about $4000. Actually, motel cost per room to build now varies from $6000 to $8000 (before the war it was about $2500) and the usual motel has 20 or more rooms; the number of units has been increasing.

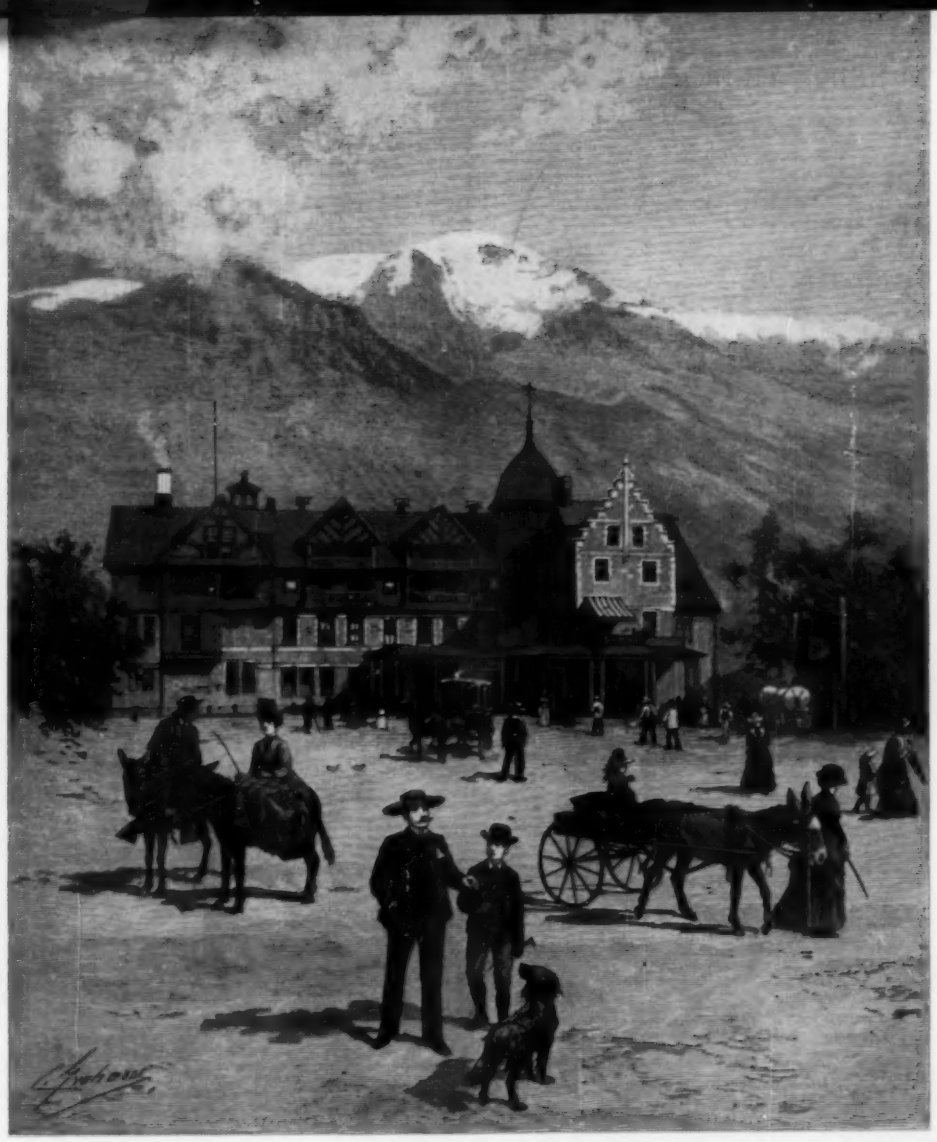
Comparatively, the average hotel investment is about $4¾ million; 35 new hotels in 1955 cost $166,712,000, averaging about $4½ million each and a little over $18,000 per room. The hotels being built, with a few noteworthy exceptions, are smaller than those we used to build. Motels have made money on a 70 per cent occupancy. Hotels, busy though they may have seemed, had 72 per cent occupancy in 1954 and, not making as much money as they felt they should, worried about the decline in patronage.

Such an investment warrants careful planning in every sense. Physically, design starts with site selection and development. Each site has inherent values to exploit and drawbacks to be countered: in the city, convenience to the things the city has to offer; on the highway, scenic values, convenience regarding traffic and proximity to major attractions. Among the items to be checked are:

Recognition or advertising value
Quality and nature of surroundings
Ease of access — by car, remember!
Effect on building layout as to compact or spread-out plan
Visibility vs. seclusion
Soil conditions for construction
Grades for drives, etc.
Possibilities for expansion

SITE PROBLEMS: WHAT NATURAL BEAUTY TO DESPOIL

Some of the early resort hotels exploited fully the natural beauties to which they owed their existence, as the three examples above show. The Virginia spa owed at least as much to its surrounding hills as to its bitter waters, and gracefully recognized the debt in the pleasant disposition of its cottages around its central building. The Cape May hotel had something of a problem in this respect; the solution was found in providing balconies for rooms that faced its main attraction, the sea — doubtless these rooms were high priced. The Antlers, sitting as it still does beneath Pike's Peak, commands tremendous views. Congestion and high realty values, concomitants of auto-mobility, pose serious site problems for modern resorts and for the small city hotel-motel



Above, The Antlers, Colorado Springs, Colo., in 1886 (Culver Service). Below, Orange Hotel, Orange, Tex.; Goleman & Rolfe, Archts.



The Golden Gate, Miami Beach, Fla.; Igor Polevitzky, Archt.



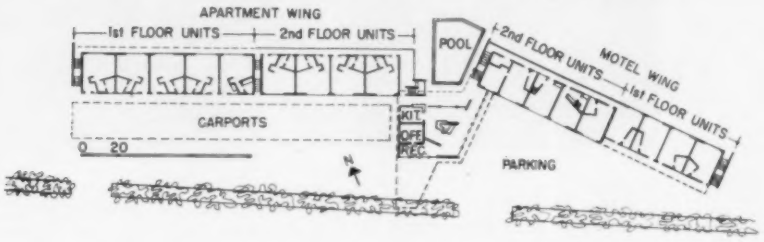
Howard Johnson's is starting a motel chain; Haag & d'Entremont, Archts. (L. S. Williams photo)





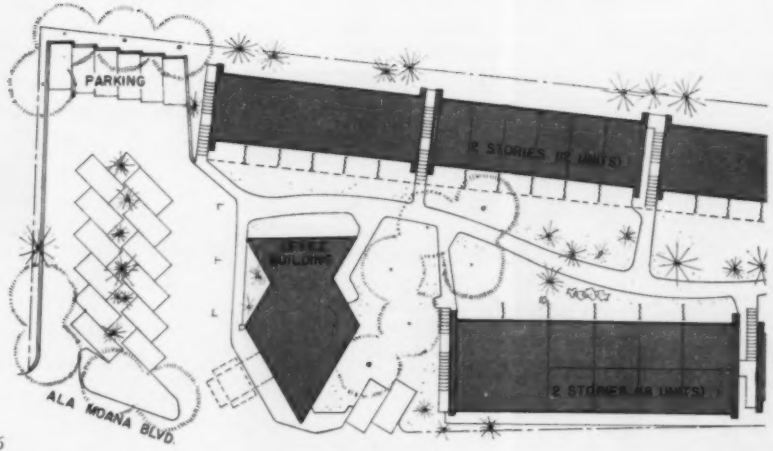


Malibu Sands Motel in California has a long thin site between the Pacific Coastal Highway and steep bluffs



SITE PROBLEMS: WHAT NATURAL BEAUTY TO DESPOIL

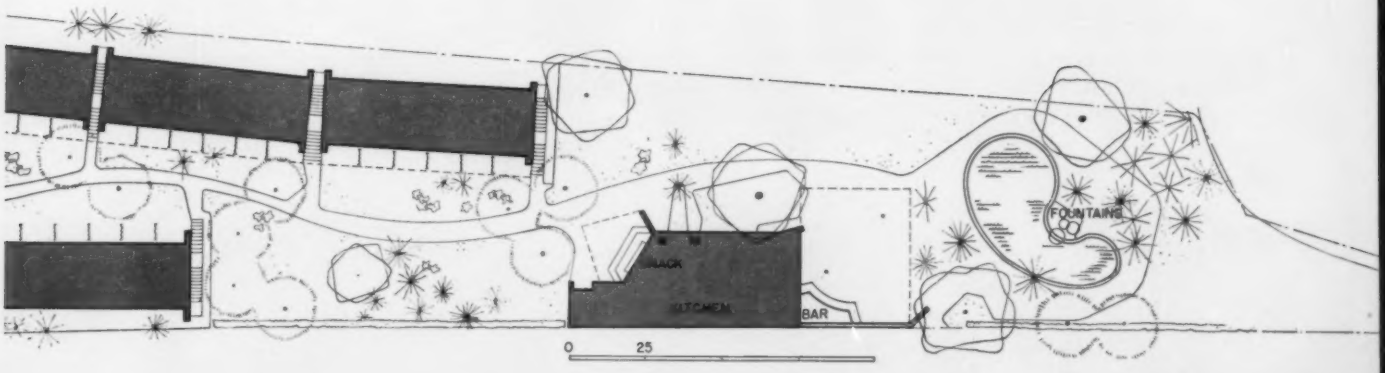
Whether a motel is a unit in an eastern chain or an individual enterprise on the West Coast, the sign, it appears, must command attention if not esthetic respect. In competition with each other, prominent signs seem to blossom most frequently where realty is expensive or where a unique location does not serve to provide an establishment with its own identity. Examples of site plans for congested areas are the Malibu Sands and the Waikikian, both shown here, where the problems of long, narrow lots have been met head on. Jackson Lodge, on the other hand, suffers only from the competition of the mountains; in an attempt at harmony with its rugged surroundings it is built of concrete poured against rough wood forms and stained brown to look rough-hewn



Jackson Lake Lodge, Jackson Hole, Wyo., has the Grand Tetons as a backdrop. Gilbert Stanley Underwood, Arch. (Herb Pownall photos)



The Waikikian in Hawaii, also on a long narrow lot but with a narrow end to the street; Wimberly & Cook, Archts; Paul D. Jones, Assoc.







Top, horses being watered in a tavern in ancient Greece (Bettman Archive). Lower, common room, medieval inn (Culver Service)



Lobby, Union Hotel, Saratoga, N. Y., on arrival of boat train from Albany (Culver Service)

We are considering the comfort and convenience of the traveler by automobile. When he arrives at his lodgings he needs, first of all, protection from the elements as he and his family alight. A marquee or porte-cochere at the main building is fairly common. Occasionally one used to see a similar provision at the door of each guest room; but as rooms became joined into rows or wings these have tended to disappear. Is this sensible? Is the economy of construction justified? Parking the car is the next problem; the closer it can be left to the room door, the better. It is on this score that the multi-story downtown motel parts company with its rural cousin.

The guest must register; usually he is road-weary and rumpled. The lobby, it follows, should be intimate in scale and proportion so he will feel at home, unobserved. This does not mean that the front desk should be cramped, either small in itself or crowded as to circulation around it. In some instances drive-in registration windows, much like drive-in banking windows, have been tried.

Most motels furnish recreational opportunities: swimming pools, courts for games, lounges for social purposes particularly in bad weather. These can all be made pleasantly attractive; but the hostelry that places its swimming pool out by the roadside hardly capitalizes on the expensive investment. In some cases, as in The Shreveporter (see later pages), soft-drink machines and ice chests are available for the guests to help themselves. Restaurants are often included, ranging from lunch counters to full meal service; good food has been found a decided attraction. A bar, when it is appropriate, usually brings in more revenue than a restaurant. Ordinarily a gasoline station is considered a drawback, its dirt and noise being objectionable.

THE AMENITIES: PUBLIC AREAS

Anyone who has tried to register at a big downtown hotel at convention time is familiar with the mob scene directly above. It exaggerates only slightly what happens today. In proportion, there seems to have been as much bustle and to-do in ancient times. So much for progress, at least in the art of designing an efficient hotel lobby. The brief respite from inelegance that was afforded by the public rooms of such hostelries as the Palace and the Glacier Park Hotel is gone; for boat-train substitute "plane-bus" today. Should a lodging place make such demands of its clientele? Why shouldn't the less pretentious motel concept take over?





Two views, courtyard, Palace Hotel, San Francisco, as it was designed for carriage trade (left, Culver Service, right Bettman Archive)

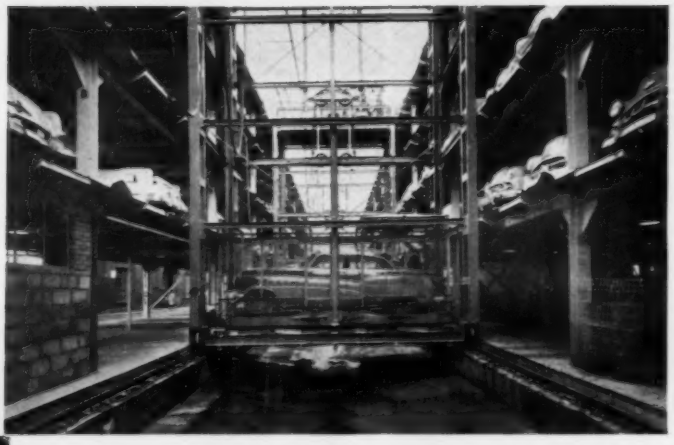
Lobby, Glacier Park Hotel, Montana, note tonic columns formed of log sections (Culver Service)





There's good reason for Jackson Lake Lodge's 60-ft picture window (Herb Pownall)





Downtown Penn Harris Hotel, Harrisburg, Pa., cars mechanically parked in pigeon-holes (Brown's Studio)

At The Shreveporter, new highway hotel in Louisiana, design of unit containing public rooms emphasizes quality of accommodations (T. C. Smith)



THE AMENITIES: PUBLIC AREAS

The approach, the lobby and parking facilities help form an arriving patron's opinion of a hostelry. Dignified or whimsical, the appearance of the establishment tells in advance what a guest may expect; an intimate lobby foretells coziness and personal attention while impressive ornateness betokens something different. Parking — there's a tough one! If the grassy meadow would stay green and its winding ruts remain dry (though not dusty) what could be more pleasant? But they won't, so our motels sit in asphalt seas. The city hotels' parking plight is worse. Some have underground garages. At the Penn-Harris, above, a car is driven onto a dolly on an elevator which, moving horizontally as well as vertically, automatically parks the car in a pre-selected pigeon-hole; once more the hotel owner has ingeniously circumvented really costs

Terrace Motel in Atlanta: two-story bedroom wings directly accessible from paved parking area (J. W. Molitor)

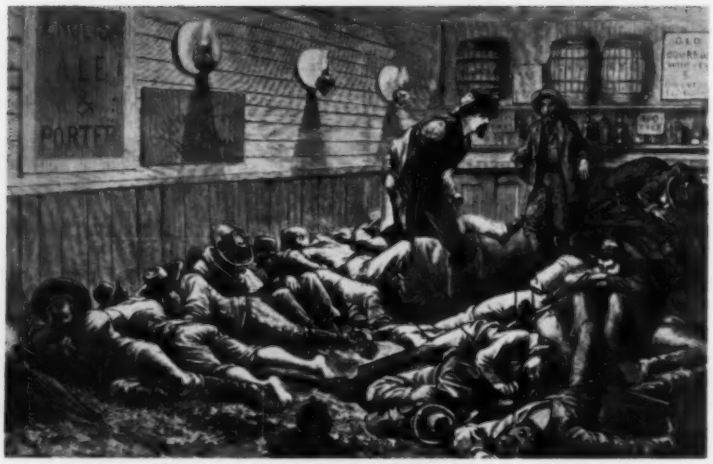


Above, Ocean View Motel, Ocean City, Md.; small lobby for reception only, snack bar adjoins (Fred Maroon). Below, spacious lounge of Malibu Sands Motel in California, obviously more expensive (R. C. Cleveland)





The medieval inn's guests climbed into any bed (Bettman Archive)



A night's sleep on the sawdust in a Leadville, Colo., saloon cost two bits (Bettman Archive)

While the average number of motel rental units is about 20, the high-quality establishment is likely to be uneconomical at that small size, particularly if it offers any quantity of typical hotel services. The larger highway hotels, like their downtown counterparts, may find it wise to provide a range of accommodations at varying rates.

One motel at a Florida resort has apartment units with cooking facilities; the apartments are sold on a cooperative basis much as cooperative city apartments are. The objective has been called a means of circumventing the high cost of vacationing at a popular resort. The owners, we hear, can sublease in the off season or whenever they are not using their quarters themselves.

Maid service, too, has developed far since the early days of motels. Linen rooms are necessary, sometimes maids' quarters. Laundry and valet service may be necessary; so may simple shops for maintenance, repairs and landscape care.

But the heart of the job remains the private room. It needs identification — room number or name — for convenience; it is, according to nearly universal current practice, large enough to be furnished as a double room even if it is ordinarily regarded as a single. The family on vacation is a family, not an individual person, and vacationing is still the principal reason for automobile travel. In fact, the room is often large enough to take additional temporary beds or cots.

Since much business is still one-night, complete closets are not always needed. On the other hand we have graduated from the nail-in-the-wall era; and if resort trade is anticipated to any degree, closets may be mandatory.

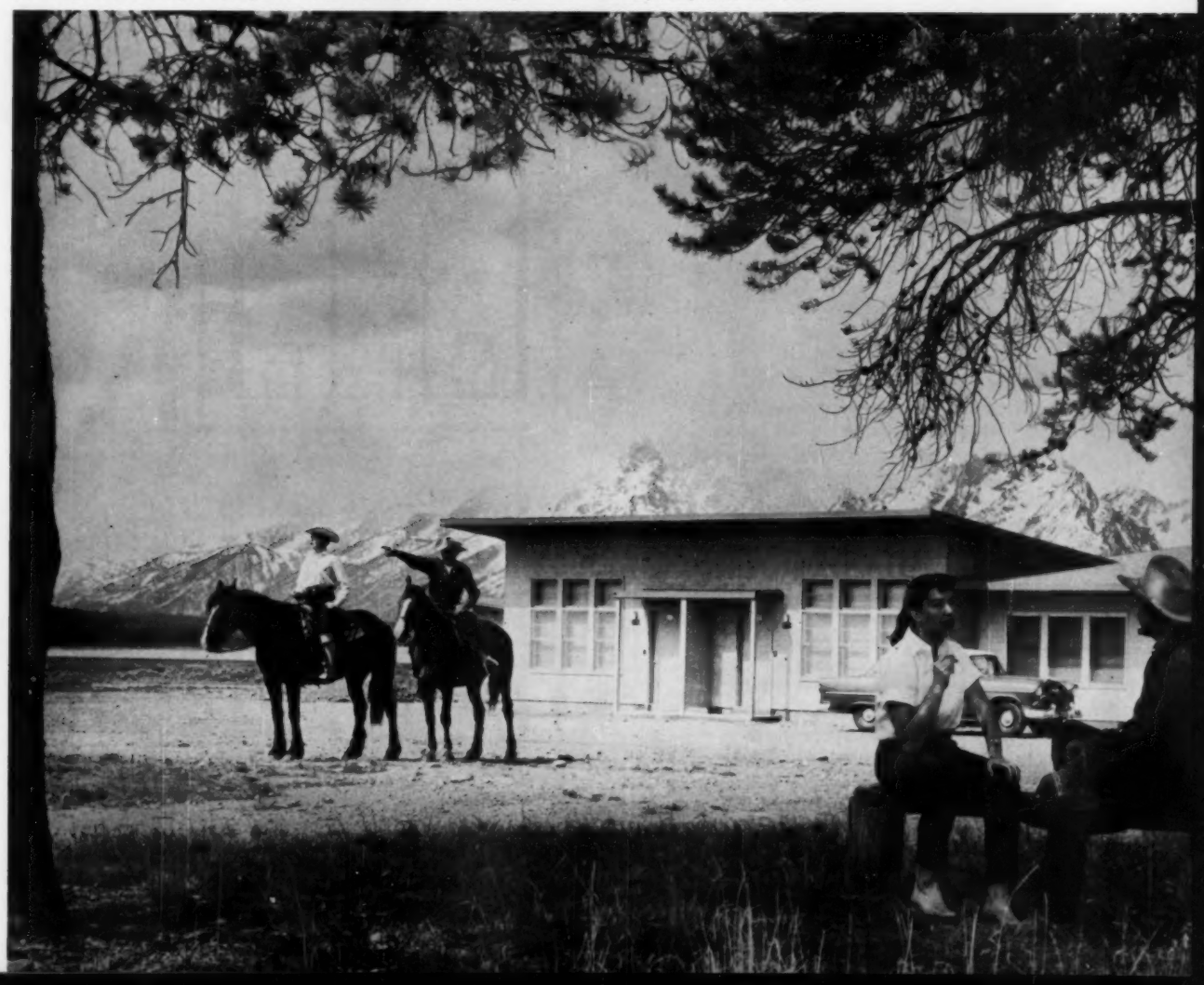
THE AMENITIES: THE IMPORTANCE OF PRIVACY

As Lewis Mumford remarked some time ago in The Culture of Cities, *privacy is a modern phenomenon and its relative importance is almost an index of the development of urban culture. Not to debate the point, only very recently has this been true of either travel or lodgings en route. In unselfconscious fashion the 1935 tourist cabin gave the confirmed auto-dweller — which by now means most of us — the same overnight control of his immediate environment that he enjoyed on the road. If he was just as cramped in the tiny quarters (with the brass-bound, lumpy-mattressed bed, wire clothes hangers hidden perhaps by a length of gingham, hand-me-down rocker with no room to rock in and bare electric bulb) as in his car, he could nevertheless lay down his head, master for the night of what he surveyed. And the price was fittingly modest*



One thing the typical tourist cabin of the '30s provided at low cost: privacy (Black Star)

Even the huge Jackson Lake Lodge in Wyoming offers a measure of privacy in its 250 guest cottages — some of them multiple units, it is true (Herb Pownall)



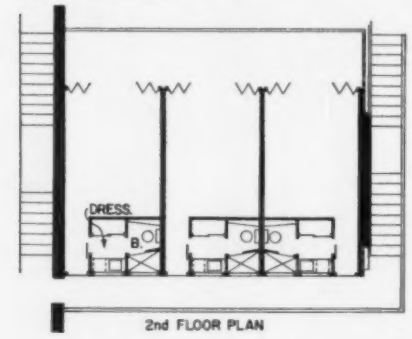


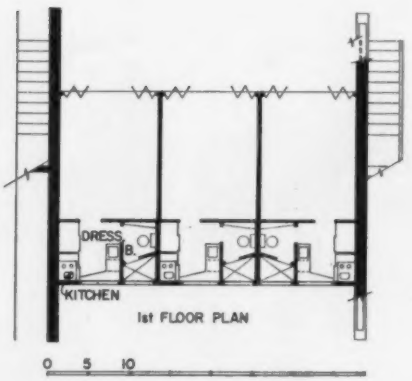
Double room, Princess Kaiulani Hotel, Hawaii, convertible from sitting room to studio bedroom (Matson Lines)

THE AMENITIES: THE IMPORTANCE OF PRIVACY

In contrast with the tourist cabin today's guest rooms for travelers, whether in resort hotels, commercial hostelries, motels or highway hotels, tend toward the luxurious. They are tastefully appointed; wall-to-wall carpeting is quite common; they benefit from the latest in mechanical equipment. Possibly in the name of economy, however, or possibly for a more impressive appearance, it became common a few years back to unite the once separate cabins into rows, and the tourist court was born. Too often this produced monotony and a re-invasion of privacy, which nowadays we are at some pains to remedy by careful site layout, sound-resistant partitions, wings in which bedrooms are offset, sawtooth fashion. The higher quality costs more to build and operate, and leads to higher room rates

Guest rooms on two floors, The Waikikian, Hawaii; planned for privacy yet openable to the breeze, with deep overhangs and lanais to protect from tropical sun and rain







Studio bedrooms, Malibu Sands Motel, California: have fenced private patios for sunbathing (R. C. Cleveland)

Malibu Sands guest rooms; interior screened from entry by angled wardrobes (R. C. Cleveland)



Guest room, Howard Johnson Motor Lodge (L. S. Williams)









Left, Chinese Rest House: masonry bunks surrounded by hot air chambers heated by a stove (Bettman Archive). Center and right, pierced walls, sliding panels, admit cooling trade winds, Princess Kaiulani Hotel, Hawaii (Matson Lines)

The best of our motels provide in their guest rooms an interior having a less "institutional" look than most hotels. Colors, textures, furniture and furnishings are carefully selected, often with competent professional advice. Custom furniture, sometimes specially designed and built, is employed. Finishes are domestic in character; paint, wall paper, wood panelling and exposed masonry are all used. The success of the result is more a matter of design quality than of the materials themselves. Lighting fixtures, TV sets, radios and room telephones — sometimes in color now that colors are available — all have the same high standards to live up to. Baths are preferably fully tiled, with a shower or tub-shower combination and, often, a water closet in its own compartment. It is common to provide a small dressing room since the guest room may serve as both living room and bedroom. For the same reason, studio beds are sometimes used.

In cold climates heating is imperative if year-round revenue is to be obtained. In southern climates, air conditioning individually controlled in each room is commonplace.

Over all these matters the hotel and motel associations and chains exercise increasing control. These organizations set high standards, which individual operator-members must maintain. Membership in a reliable association has become an inducement to patronage.

THE AMENITIES: FROM RUNNING WATER TO TV

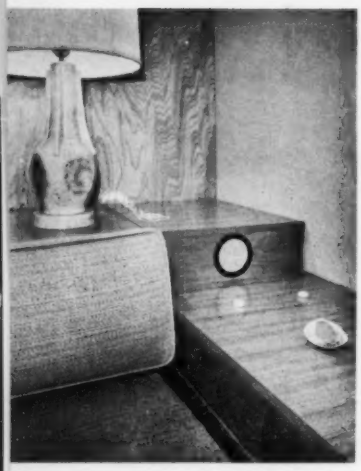
Only a few years ago occasional tourist cabins proudly advertised running water; then came signs announcing private showers; now in northerly sections some motels still exhibit signs advertising HEATED CABINS — which means winter sports enthusiasts are using motels year 'round rather than seasonally. In the south, air conditioning is proclaimed unnecessarily; how could a southern operator hope to stay in business without it? The trend to increased mechanical control of environment — heating, lighting, air conditioning — is as pronounced in this field as in any other. Now when advantage is taken of natural phenomena for the same purpose, as in the Princess Kaiulani (above), the event seems as noteworthy as the first plumbing installation



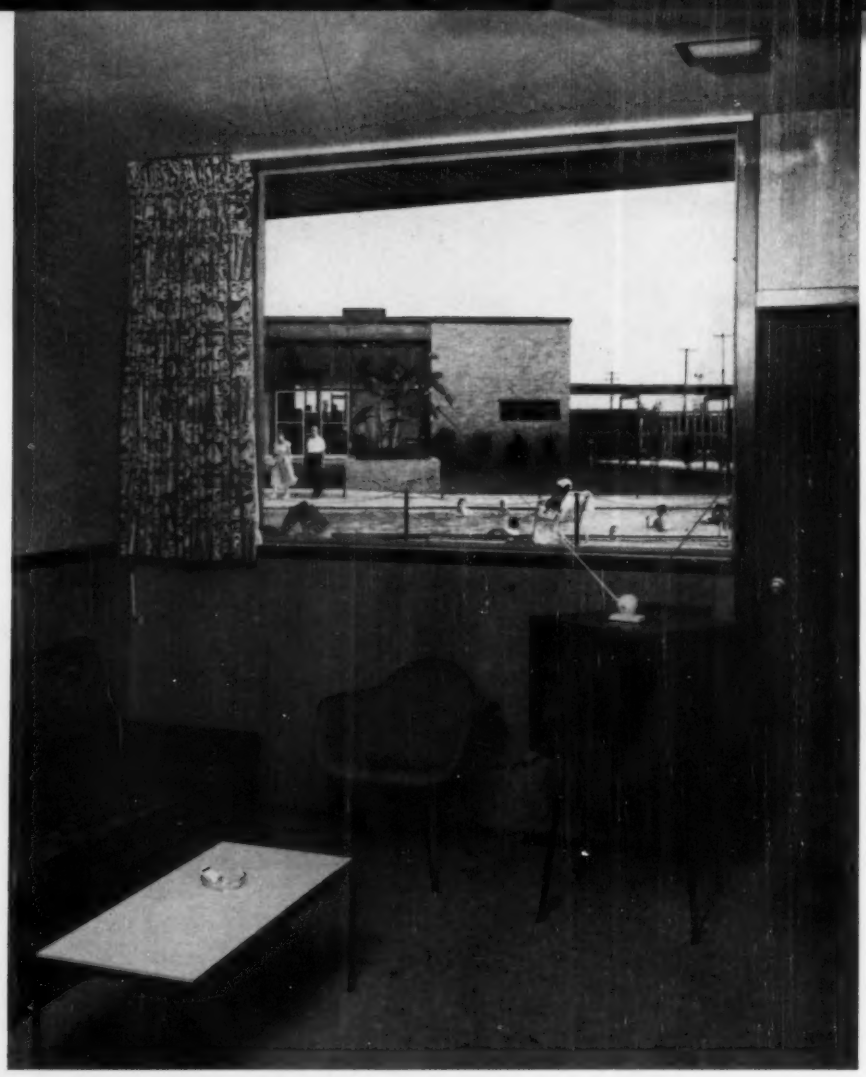
A place in the sun, Ocean View Motel, Md. (Fred Maroon)

The air conditioned Atlanta Terrace Motel in Georgia has a swimming pool too (J. W. Molitor)





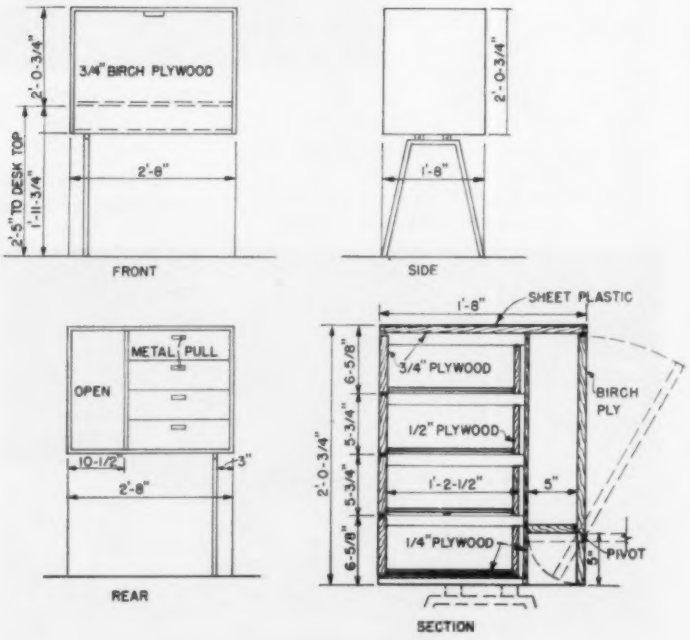
Built-in radio and bed, Malibu Sands Motel (R. C. Cleveland)



Both TV and a view of the pool, The Shreveporter (T. C. Smith)

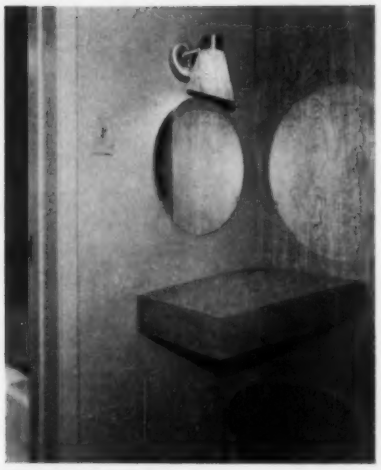
THE AMENITIES: FROM RUNNING WATER TO TV

Competition for patronage produces comforts for travelers that were unheard of in earlier days. As hotels provide radio and TV in guest rooms, so do motels. Practices common in new, high-quality highway establishments go far beyond this, however. Built-in furniture and items of equipment, many of them custom made, are quite common. Much furniture of course has to be portable, and such items are often selected from standard merchandise of excellent design and superior quality. This not only sets a tone which the motel's progenitor, the tourist cabin, lacked; because high quality furniture wears well in addition to pleasing the customers, it also results in lower maintenance and replacement costs



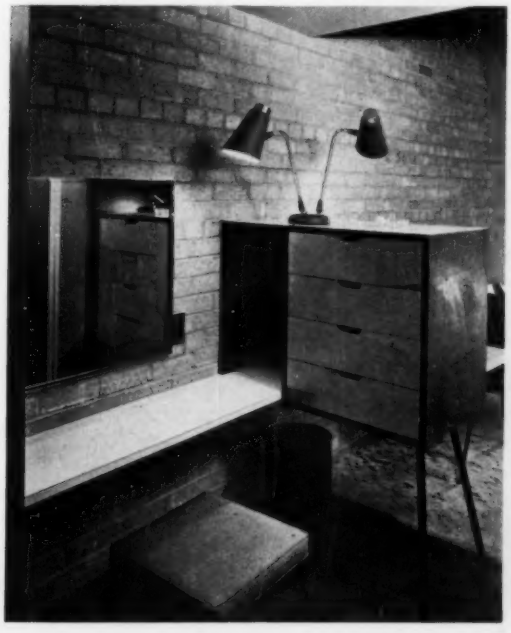


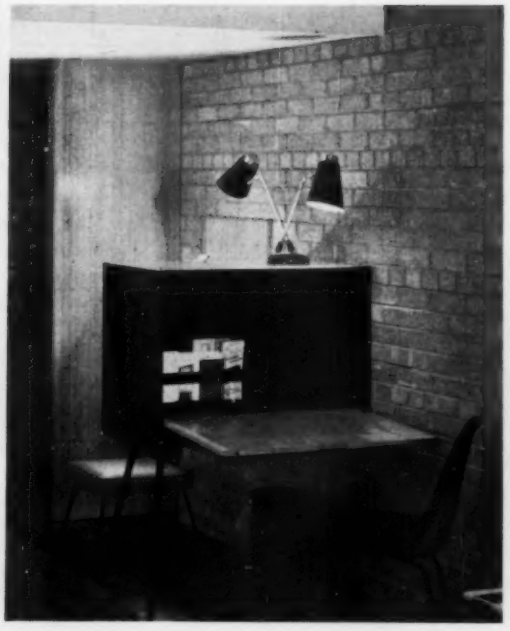
Bathroom mirror mounted at angle for better vision, Malibu Sands (R. C. Cleveland)



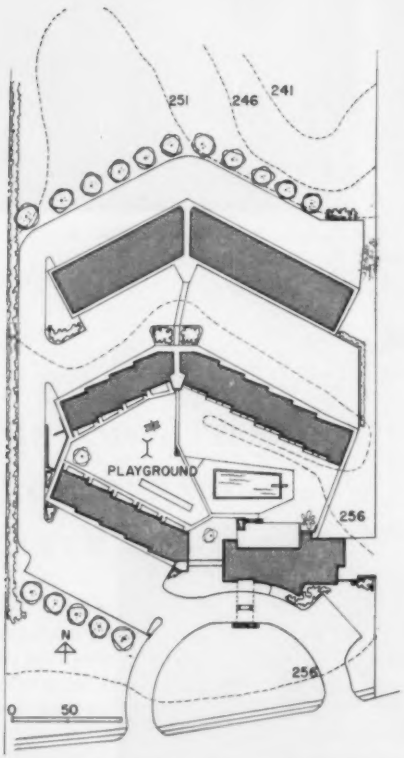
Built-in vanity in an unused corner, Malibu Sands (R. C. Cleveland)

Two views and (facing page) details, built-in dresser-desk, The Shreveporter (T. C. Smith). Further details on following pages









Site, on heavily traveled Highway 80, is just inside city limits, 4 miles from downtown and 2 miles from the airport and State Fair Grounds. Room orientation varies less than 20° from ideal north-south exposure



SOUTHERN HIGHWAY HOTEL: THE BEST IS NONE TOO GOOD

The Shreveporter, Shreveport, La., Samuel G. Wiener & William B. Wiener, Architects, Jesse O. Morgan (Architect in Charge) and Aubrey E. Butler, Assoc.

JACK TULLOS, president and manager of The Shreveporter, and Alfred Roper, vice-president and treasurer, were experienced hotel men when they quit good jobs to get the new highway hotel under way in 1953. Mr. Tullos describes the profitable enterprise and its underlying concept:

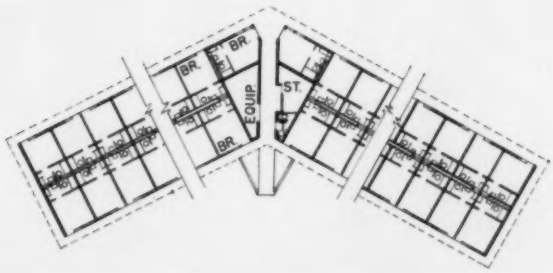
"It is my opinion that there is a need for both the highway hotel and the well operated downtown commercial hotel. The highway hotel is the answer for a man traveling with his family and for the commercial man whose activities are not entirely downtown. Today, many business establishments are moving to suburban areas; and many commercial travelers find a hotel on the outskirts convenient. Too, convenient parking makes the highway hotel ideal for small conventions and group meetings. Some commercial men, particularly in summer, even though business keeps them in town all day, enjoy leaving the city hubbub and relaxing here. On the other hand, downtown hotels are certainly satisfactory for those who have time only for downtown business.

"The Shreveporter attracts people just passing through, for overnight or longer stays. Our resort atmosphere, swim-

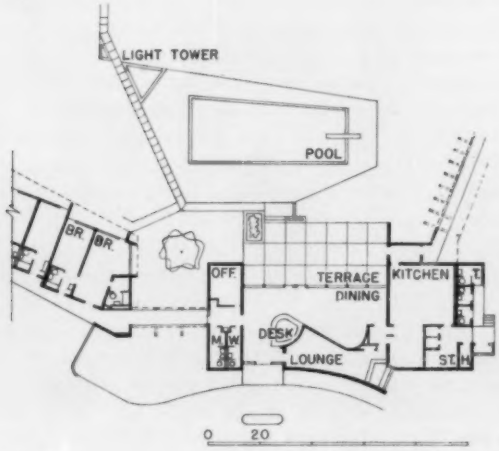


Frank Lotz Miller

Everything from sign and landscaping to interior decoration, menus and stationery is architect-designed. Auto access and parking at room doors are kept away from main court, dining terrace, pool and game layouts







T. C. Smith







Frank Lotz Miller

COST DATA

Site	$ 30,000
Buildings, paving, pool	530,600
Landscaping	6,800
Furnishings, equipment	82,750
Cost per room, excluding furnishings bought separately but including public areas, kitchen, landscaping, pool, etc.	8,000

Average rate per room is $9.75, which provides satisfactory return on investment at 70 per cent or more occupancy



T. C. Smith

THE SHREVEPORTER

ming pool, dining facilities and good food have attracted local patronage also. Families in town spend weekends to enjoy swimming and other recreation for adults and children; people spend long vacation weekends here and as we become better known we hope to have them for full vacation periods. Many local people find us convenient for lodging out-of-town guests who can't be accommodated in their homes.

"These are the patrons we expected and planned for. If we were to start over, we would include private dining rooms for group meetings and the necessary larger kitchen facilities. We should increase the number of rooms from 70 to 100 or 125. Part of this expansion plan is under way."

The operators emphasized to the architects the importance of high quality and atmosphere in every respect, from landscaping and site development through the smallest detail of finishes and equipment, including air conditioning. Only in one respect were there restrictions on design: the 400-ft-wide site, the architects believe, might better have been 500 ft for this size of establishment.

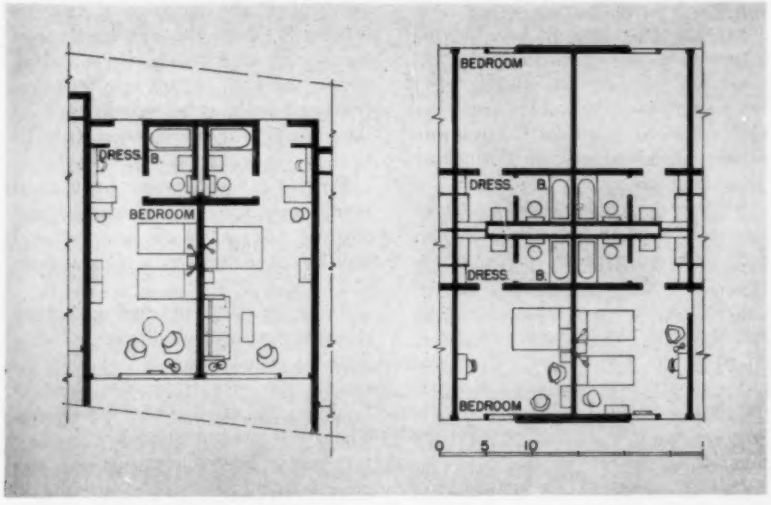


Bedroom wings angled and offset for variety

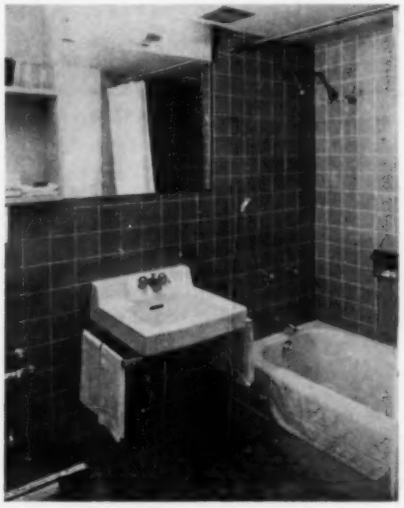


Frank Lotz Miller

Color relieves monotony. Diffused outdoor lights are carefully placed



One-room-deep wings command higher rates for larger quarters



T. C. Smith

Deep shelves hold toilet cases; mirrors are fixed, bath towels extra large



Individually controlled air conditioning



T. C. Smith

Abstract "Stabile" designed by Samuel Wiener, Jr., carpenter-made

FINE HARDWOOD VENEERS FOR ARCHITECTURAL WOODWORK

By Burdett Green, Executive Vice President, Fine Hardwoods Association, and James Arkin, A.I.A., Consultant, Architectural Woodwork Institute

FINE HARDWOOD FACE veneers bonded into plywood offer a classic example of a truly modern material. The decorative value of the wood is locked under the bark of a tree for years until it is fashioned by man and machinery and incorporated into a building. No two trees are alike and, indeed, no two pieces of veneer are exactly alike. Veneer is unique when it is applied to an architectural wall panel, a door, built-ins or other cabinetry. The color, figure, luster and depth of true wood may be unveiled over large expanses of wall area in the form of smooth paneling, instead of being confined by many small recessed and divided panels. Raised panels framed by stiles and rails may now be fabricated of architectural plywood uninhibited by limitations on size and decorative possibilities.

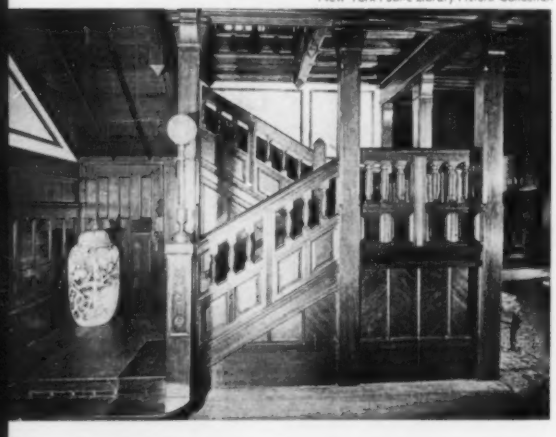
This timeless material owes its resurgence to modern design and to technical advances. Synthetic adhesives have made possible the bonding of veneers into a homogeneous material, and the new finishes enable architects to take advantage of the natural characteristics of wood for decorative wall covering. Clear and toned finishes which protect the wood from abuse and soil spots provide a modern substitute for time-consuming, hand-rubbed oil finishes or "French polish."

Nineteenth century concepts about the use of wood as a material were partially involved with the display of the products of the new woodworking machines. Adaptations of French and English styles of paneling could be reproduced at will, and solid wood paneling in dark stains was considered *de riguer* for certain types of buildings, particularly for such special functions as private libraries, law offices and inns.

New processes of production have changed the old philosophy of design. Contemporary thinking is concerned with the inherent beauty and function of natural materials. Twentieth century methods of panel fabrication free the architect of the requirement that he arbitrarily divide the wall area into a number of small panels. He may now divide the wall surface into well-proportioned units as he sees fit, and he may integrate the wall panels with the door frames and window frames. Many opportunities for designing harmonious rooms are possible in matching, or contrasting, the panels on casework and built-in cabinetwork with the panels on the walls.

Today, smooth wall paneling in many different species and finishes is being installed in all types of buildings, in spaces that serve all manner of group functions and in rooms for individuals. The new Diagnostic Building in Rochester, Minn. (Ellerbe and Company, Architects) incorporates plywood wainscot of special design throughout the spacious lobbies, corridors and halls on all floors above the second floor, except for large murals in the waiting halls. Each floor

New York Public Library Picture Collection



James A. Stacke



Ornate paneling and stairway of 19th century home contrast with smooth, book-matched, red oak paneling (right) in Diagnostic Building, Rochester, Minn. (Ellerbe & Co., Architects), and book-matched, figured flat cut walnut paneling of vice presidents' offices (far right) in Mellon Bank, Pittsburgh (W. K. Harrison, M. Abramovitz, W. Y. Cocken, Associate Architects), separated from Trust Dept. by hardwood-framed glass

Wood paneling is being used more frequently today than at any time since the era of Christopher Wren. This development has been made possible by the application of modern technology to the fabrication of custom-designed plywood paneling which embodies face veneers of fine hardwoods. In order to provide you with information on the characteristics of many hardwood veneers, this article introduces a series of Time-Saver Standards which will identify and describe many of the species now available to architects, and of interest to them

is paneled with a different species, carefully book-matched. The waiting room, of red oak, is shown below. A special flitch of walnut was provided by Chester B. Stem, Inc. of New Albany, Ind., for the integrated paneling and glass framing, shown below, of the Mellon National Bank and Trust Company in Pittsburgh. Many other examples can be cited, and numerous projects under construction or on the drawing-boards will testify to renewed interest in wood for interiors.

There are many different species of hardwoods — 99,000 to be exact — and each one varies in physical properties as well as in decorative features. Regardless of these variations, most hardwoods that are on the market today are there because they have proved themselves durable enough and stable enough to perform a required function in veneer form. Admittedly the architect's principal motive in selecting a veneer is to achieve an aesthetic goal, and he would be well-advised, therefore, to place primary emphasis on appearance and effect instead of "practical" considerations of strength and stability, which motivate him when he selects other building materials, including solid lumber.

COST

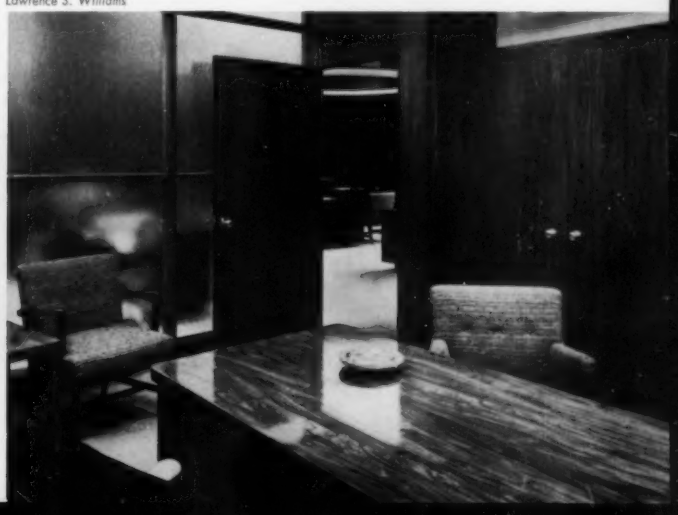
The cost of fine hardwood face veneers, regardless of the species, is but a fractional part of the total cost of wall paneling. This total cost includes fabrication and installation of the entire panel or other form of architectural woodwork. The plywood core, with cross-banding and back sheets, costs the same regardless of which species is chosen for the faces. And the cost of fabricating the paneling, installing it and finishing the walls and trim is certainly not dependent on the veneer used. Since the cost difference between two different flitches will represent such a tiny portion of the total cost, the selection of veneers solely on the basis of relative cost is questionable economy.

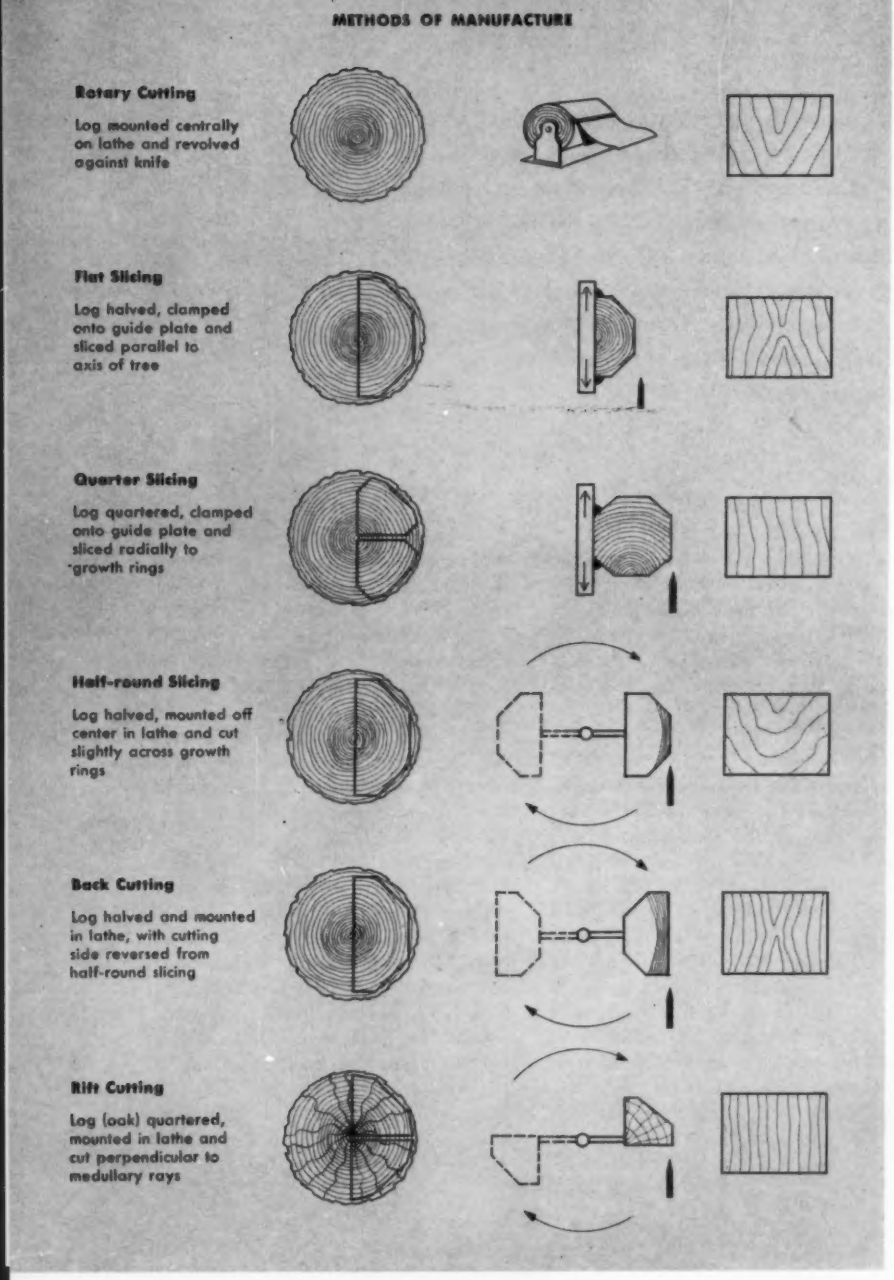
The total range of the cost of veneers varies from 2 to 60 cents per square foot, with many architectural veneers available in a bracket as low as 10 to 25 cents. The differences in cost are determined by the economic laws of supply and demand. A species that is popular with both architects and owners, and which has an effective but sedate figure, might sell for a few cents more per square foot than the same species with a flamboyant figure. In general, though, figured face veneers cost more than plain veneers. Wide veneers and extra-long veneers are not easily obtainable, and therefore a premium is charged for larger sizes. Other factors also influence the cost, especially if the logs are brought from a distant land, such as the jungles of South Asia, where sometimes elephants and natives are used as carriers.

Lawrence S. Williams



Lawrence S. Williams





MANUFACTURE

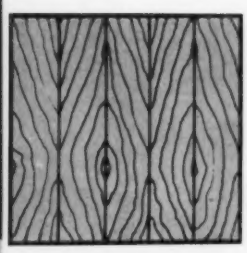
Manufacturing methods are important because they determine the various types of veneer from which the architect makes his selection. Fine woods may be either "plain" (grain character caused by annual growth rings) or "figured." "Figure" results from any of these three sources: (1) distorted, irregular or wavy arrangements of wood fibers; (2) the presence or absence of conspicuous rays, *e.g.*, quartered oak; (3) pigmentation, *e.g.*, circassian walnut or figured red gum. There are three methods of cutting used to produce different veneer characteristics:

1. Slicing. This method of cutting veneer is usually employed for the production of most of the veneers for fine paneling and cabinetwork. Sliced veneers are produced in a vertical slicer by thrusting the prepared log, or flitch, against a long knife which cuts slice after slice, straight through the entire length. The angle of cut can be varied with respect to the grain of the wood, in order to bring out the most attractive figure. As each slice comes from the knife, it is turned over and piled in the same sequence as it is cut. This order is carefully maintained in subsequent drying and handling operations. The veneers from any one flitch are usually boxed and sold as a complete unit. Successive sheets of sliced veneer are frequently matched to produce uniform figure formations.

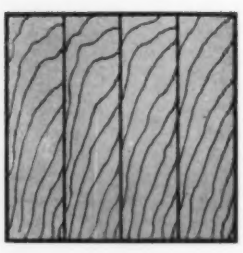
The face veneers produced by slicing are usually $\frac{1}{28}$ in. thick, but thicknesses varying from $\frac{1}{100}$ to $\frac{1}{8}$ in. can be produced by this method. Two basic figure types result from the slicing operation: (1) flat-cut (also termed "flat-sliced" or "sliced"), and (2) quarter-sliced.

In *flat-cut* veneers the log is halved and cut tangent to the annual rings. This provides an opportunity to reveal

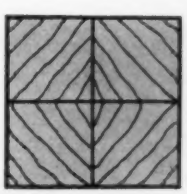
METHODS OF MATCHING



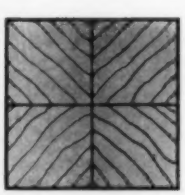
Book Matching (or Reverse Side Matching) is accomplished by turning over adjacent sheets of veneer, like unfolding the pages of a book. Thus, the back of one veneer meets the front of the next, and so forth. According to the angle of light, one sheet will be slightly darker than the next



Side Matching (or Slip Matching) consists in laying adjacent sheets of veneer right side up, so that essentially the same flitch figure is repeated. This method avoids light and dark contrast. Although all types of veneer can be used, side matching is most common in quarter slices



Diamond Matching



Reverse Diamond Matching

the heartwood, which is generally darker than the sapwood, if such an effect is desired. Varying amounts of sapwood may appear, diminishing as the sheets approach the center of the log. With this type of cutting, the grain pattern resulting from the annual growth rings is most prominent.

Quarter-sliced veneers result from slicing a quartered log radially to the growth rings of the tree. This cutting produces conspicuous striped or ribbon types; also, in some woods, pronounced rays or flakes. The annual rings form the finer stripes, and interlocking grain forms the ribbon stripes, *e.g.*, quartered African mahogany.

2. Rotary Cutting. In rotary-cut veneers the annual growth rings frequently form ellipses and parabolas that make striking grain character effects, especially when the rings are irregular in width and outline on the cut surface.

Rotary cutting is always used in the production of commercial veneers for the inner plies of plywood, and also for cutting some figured veneers. In this process the log is centered and held by chucks in a massive lathe. The veneer is obtained by rotating the log against a knife which is held parallel to the axis of the log and peels the veneer off in a continuous sheet like wrapping paper on a reel. This continuous sheet is very suitable for covering large surfaces, but has limited matching possibilities. The thicknesses are the same as sliced veneers.

Half-round Slicing, also Termed "Stay-log Cutting." Half-round slicing is a form of rotary cutting. It is generally used to produce figured face veneers from stumps, burls and crotches, and in certain species (oak) to avoid a marked radial figure. This method also produces wider widths than flat-cutting.

Half-round employs a "stay-log" (a heavy casting) which moves the center of the log away from the center of the lathe. The sheets of veneer are kept in sequence and sold in the same manner as sliced veneer.

Rift cutting is a method of half-round cutting in which the flitch is placed in the machine, again off center, so that the cut is neither parallel to the medullary rays nor tangential to the growth rings. The result is a rather wide quartered effect, with no rays showing.

Back-cutting is another form of rotary cutting. It approaches quarter-slicing to the same degree that half-round slicing approaches plain slicing. The purpose is to produce a rift effect (oak).

3. Sawn veneers are used to produce thick door faces or lengths over 16 ft. Thicknesses are generally from $\frac{1}{16}$ to $\frac{1}{4}$ in. However, practically all veneer saws have been eliminated by the veneer industry because of excessive costs.

FLITCH

"Flitch" is a valuable term for specifying veneers. It is a segment or section of the log of such a shape and size that it can be handled most efficiently through the various manufacturing processes. The log is sawed into segments which are usually halves and quarters. From two to four samples are taken from each flitch. One comes from near the top, one from the center and another from near the bottom. "The samples must truly represent the flitch" is a basic tenet of the industry. All sheets of veneer in a flitch are kept in sequence through the slicer and drier and into the final strapped and crated flitch. This sequence facilitates accurate book matching for face veneers. Where a uniform or formal effect is desired, specification writers can assure such uniformity by specifying "architectural matched plywood," which means, "the face veneers shall be kept in sequence, or the order in which they were produced."

MATCHING

Young architects are sometimes mystified by the process whereby their more experienced elders select veneers. It is not an over-simplification to state that they select the veneers which they like best. Frequency of use familiarizes the architect with the different species and the various cuts. The more he learns about veneers, the more conscious he becomes of the real challenge they can present in the form of matching.

Matching is the system of organizing the veneers within a given wall area in such a manner as to take full advantage of the figure, the combinations of color and the multiplicity of shades, and so to determine the over-all pattern. The chart below illustrates the most common methods of matching. Some other matching terms which it is helpful to know are as follows:

Center Matched — two pieces of equal size are matched with the joint coming in the center of the panel.

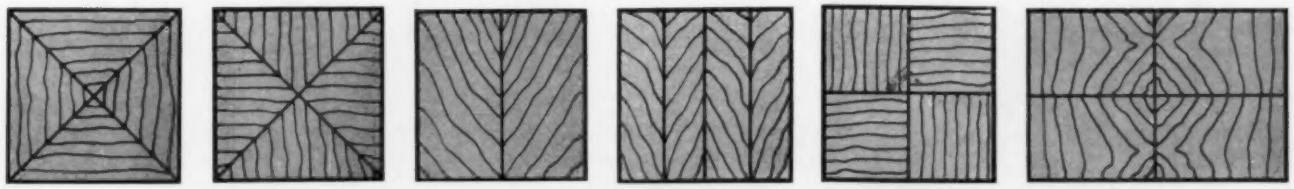
Random Matched — a combination of unequal-sized pieces.

Balance Matched — more than two faces, although of uniform size, are laid as a face.

Mismatched — grain character or figure of the adjacent pieces in the face of a panel do not properly match.

A scheme for matching or combining veneers should necessarily be predicated on a knowledge of the existing sizes which are available for one or more preferred species. This information may be readily obtained from veneer manufacturers or from manufacturers of sequence-matched architectural panels. If veneer of a preferred length or width cannot be found in a particular species, it may be available in another species of somewhat similar character or color. However, dimensional problems arise only in the case of a large room with high ceiling.

Book and Side Matching are the most commonly employed matching methods. However, there are many other matching patterns possible, simple and elaborate, some of which are shown here



Box Matching | **Reverse Box Matching** | **"V" Matching** | **Herringbone Matching** | **Checkerboard Matching** | **Four-way Center and Butt Matching**

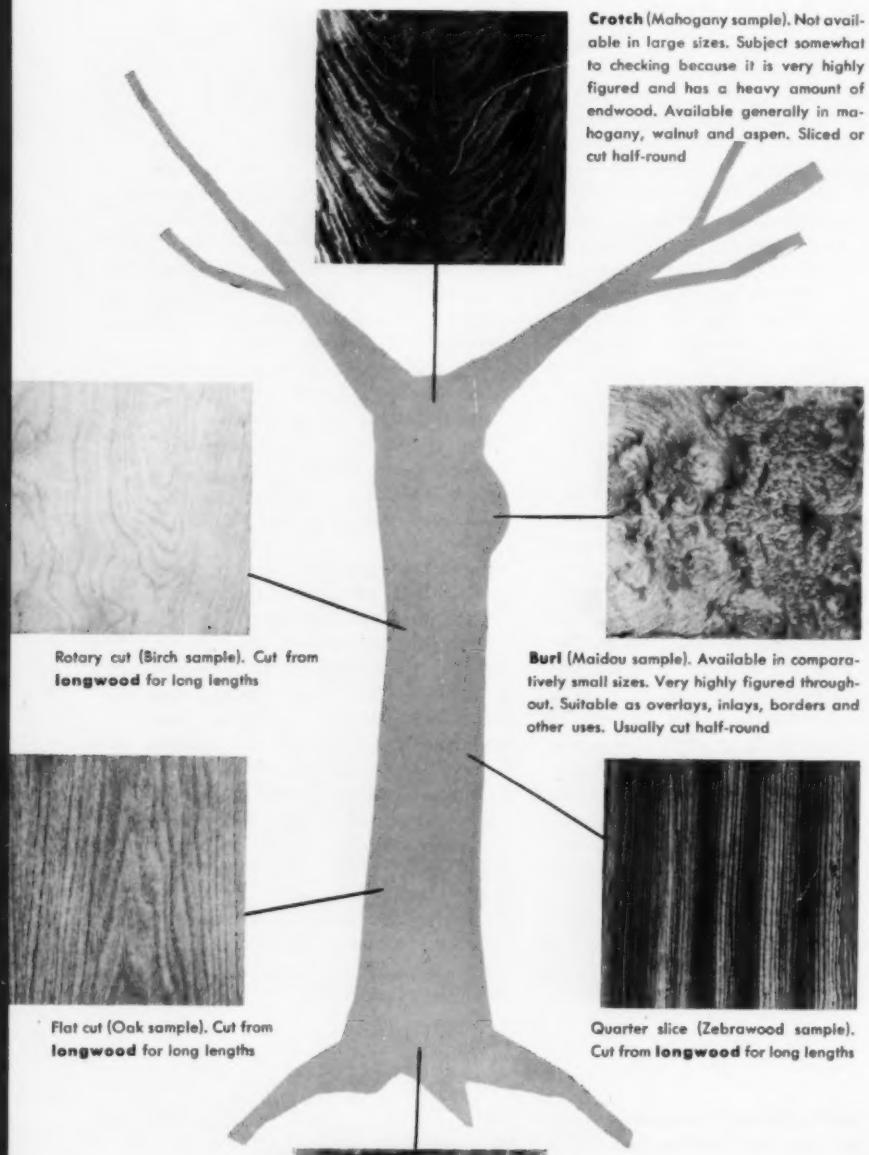
DIMENSIONS

Lengths of veneers range from 6 to 16 ft, with the highest percentage being cut in lengths of from 9 to 12 ft. The woods which are sold in the greatest volume may usually be obtained in the larger sizes. Individual species, such as holly, rosewood and yew, and special cuttings, such as burls, will vary from these standards down to 30-in. lengths.

Widths of veneers range from 6 in. up to 30 in. or more. The determining factor in flat-cut veneer is the diameter of the tree. Quarter-sliced and ribbon-stripe veneers are necessarily procurable in small widths, because of the manner in which they are produced. Narrow widths of veneers may be joined together by means of the tapeless splicer, an electronic gluing device which forms a continuous effect without visible evidence of jointing.

The standard thickness for architectural veneers in North America is $\frac{1}{28}$ in. if produced by slicing or rotary cutting. Sometimes individual manufacturers will produce slightly heavier veneers in certain species, but seldom thicker than $\frac{1}{16}$ in., and then only on custom order. At first glance, a $\frac{1}{28}$-in. veneer may appear to be fragile and unduly thin. Actually, it is a very substantial piece of wood when blended into plywood and will readily resist normal abuse. Use of the standard $\frac{1}{28}$-in. veneers is the only method of obtaining uniformity over large wall areas.

PARTS OF TREE



Crotch (Mahogany sample). Not available in large sizes. Subject somewhat to checking because it is very highly figured and has a heavy amount of endwood. Available generally in mahogany, walnut and aspen. Sliced or cut half-round

Rotary cut (Birch sample). Cut from **longwood** for long lengths

Burl (Maidou sample). Available in comparatively small sizes. Very highly figured throughout. Suitable as overlays, inlays, borders and other uses. Usually cut half-round

Flat cut (Oak sample). Cut from **longwood** for long lengths

Quarter slice (Zebrawood sample). Cut from **longwood** for long lengths

Stumpwood or Butt (Walnut sample). Most commonly available in American walnut (often misnamed "burl" walnut), in which an unusually attractive figure develops just above ground line. Especially suited to four-piece matching. Usually cut half-round

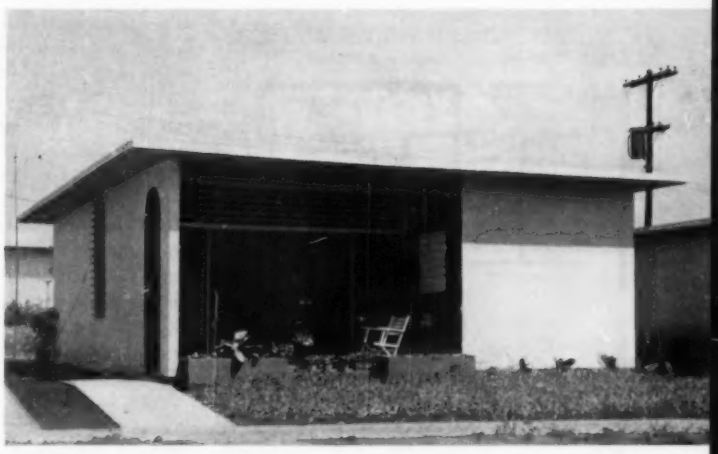
FIGURE TYPES

The actual figure type of a veneer is determined by a number of different factors, including the species of the tree and the particular nature thereof, the part of the tree from which it is produced and the method used in manufacture. On pages 211, 213 and 215 of this issue of ARCHITECTURAL RECORD, the first sheets are presented of a new series of Time-Saver Standards which will attempt to identify and describe the hardwood veneers which have the most common acceptance and which are readily available from inventory in most parts of North America. The index commences with the woods which are familiar to designers, which are available in greatest quantity and which offer the greatest variety in figure types. These woods are:

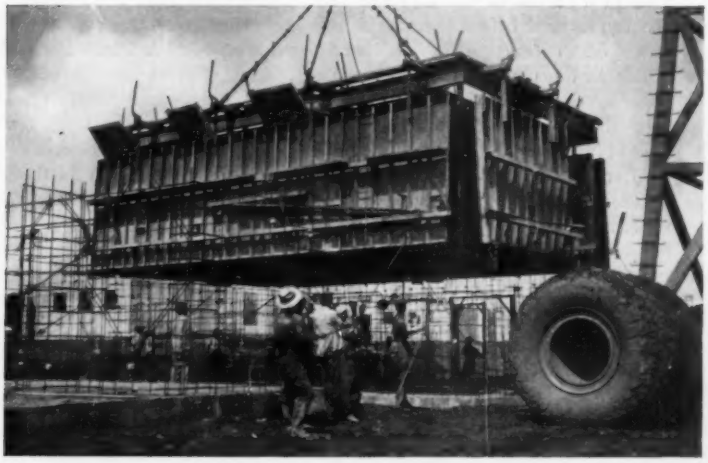
Birch
Maple
Mahogany
Oak
Cherry
Philippine Hardwood
Walnut

Possibly an entire page may be devoted to woods such as Genuine Mahogany and Walnut, each of which has many figure types. Some of the other woods may feature two or three figure types. However, most species will have only one type. The series will close with a listing of the most obscure of the exotic woods.

STEEL FORMS SPEED SAN JUAN HOUSING



VILLAS LAS LOMAS, a low-cost housing development covering a sloping tract of 205 acres in San Juan, Puerto Rico, is springing into existence by assembly-line methods at the rate of six houses a day. Colorful, compact, reinforced concrete houses — 1583 of them — are being "poured" by means of a unique system of steel forms.

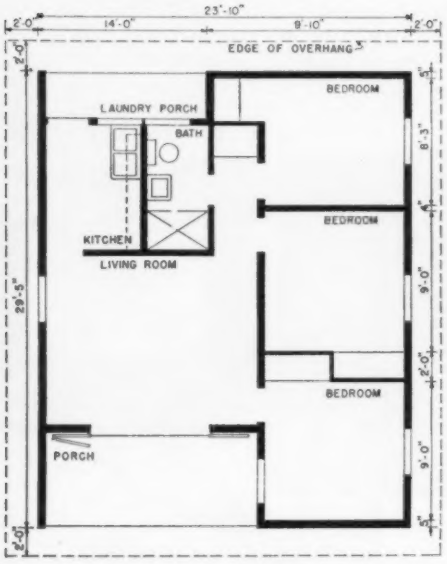




The 32½-ton steel form (above left) is lowered onto a 4-in.-thick reinforced concrete slab, into which have been incorporated piping and electrical conduit. After tightening of the exterior panels, left loose during lowering for easier alignment with steel reinforcing rods, concrete is poured through "lips" at the top of the form (top right). After the concrete has set for approximately 24 hr, the form is loosened and lifted off the house (below left). About 28 days later, a 4-in.-thick concrete roof slab is placed on top of the hardened concrete



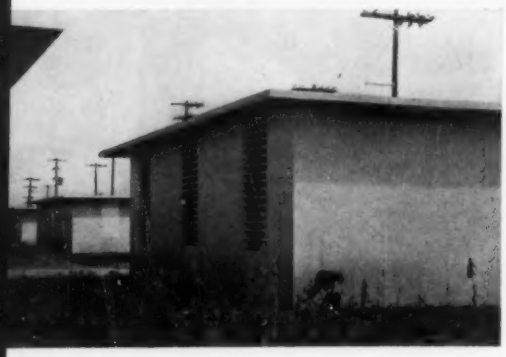




Floor plan of Trade Winds house, one of two basic models in Villa Las Lomas



As shown from the inside (above) and from the outside (below), slots are left in the walls just under the roof to provide natural ventilation. Most windows, enclosed with adjustable aluminum louvers, open to roof height, although bedroom window shown in photograph above does not



The steel forms which make possible the speed of construction being realized in Villa Las Lomas were conceived by Wallace K. Harrison, partner in the architectural firm of Harrison & Abromovitz and a director of the International Basic Economy Corp., and engineered by Emil H. Praeger, structural engineer. As shown in the series of construction shots on the preceding page, each form consists of heavy steel ribbed plates, prefabricated into one complete house form, including cavities not only for exterior but also for interior walls. The 32½-ton form is hoisted in its entirety, by means of a mammoth mobile crane, and lowered onto the already-poured 4-in.-thick reinforced concrete slabs on grade. All piping and electrical conduit are incorporated in the slab, and vertical risers fit readily into the proper walls in the form. Steel reinforcing rods are also secured before lowering of the form. Small concrete blocks, barely visible in the photo on the preceding page, are tied to the rods at intervals to keep them from slanting against the sides of the forms during the pour.

After the form has been set securely on the concrete slab, the exterior steel panels, which are loose during the lowering so that there will be a wider opening into which the reinforcing rods can fit, are locked to the interior faces by means of tie rods. Concrete is then poured into the wall cavities, as shown. The steel "lips" at the tops of the exterior panels can be moved in order to guide the concrete into the forms. Exterior walls are poured to a thickness of 5 in., interior walls 2 or 3 in.

The next day, after the concrete has set for a little less than 24 hours, the form is loosened and lifted off the house, then set down again on another slab to form another house. About 28 days later, or less, after the concrete has hardened sufficiently, a concrete roof slab is laid on top of it. The 4-in.-thick roof slabs are poured in piles of six, one on top of another, much as they are for lift-slab operation. A thin layer of paraffin oil separates each slab. Each day six houses are "roofed" by "sucking" each of the slabs up separately by means of a vacuum suction apparatus on a crane and lowering it onto the proper house. Metal roof anchors and wall anchors at eight points are welded together to supplement the 21-ton weight of the slab in keeping the roof securely in place.

Only six forms are used in Villa Las Lomas, which makes possible the pouring of just six houses a day. Activities on the site are planned so that some progress is made on each group of six houses every day, from leveling of the plot to painting.

Of the six forms used, there are two basic designs, each of which is planned for easy expansion. Three variations in each of the two basics, simply minor changes in the façades, relieve what might otherwise be a "too standardized" appearance. The floor plan of one of the houses, the Trade Winds, is shown at left. It is 23 ft 10 in. wide and 29 ft 5 in. deep (not including the roof overhang), and includes three bedrooms, living room, kitchen and bath, in addition to front and back porches. The bath has a stall shower, but the floor curb is raised so that it can be filled with a few inches of water to provide a small tub for bathing babies. A Trade Winds house, completed and occupied, is pictured on the preceding page.

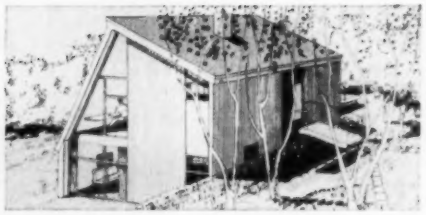
The second basic house, the Belair, measures 20 ft 9 in. wide by 33 ft 1 in. deep, with an area of 685 sq ft as opposed to an area of 705 sq ft for the first type. All six houses sell for $6000 to $6200, the $200 difference being site preference. Architect for the houses was Edward L. Barnes of New York.

The houses have no heating system, since the temperature in Puerto Rico is almost never low enough to require heat. Window openings are not enclosed with glass, but with adjustable aluminum louvers, which can be closed when necessary for keeping out weather or light. Natural ventilation is provided through door and window openings and wall slots under the roof overhang, which are left in the concrete forming. Both the interior and exterior walls and ceiling are painted. No other finish is practical in such a moist climate. All floors are natural cement tile.

So far well over 1000 houses have been started, and almost half are completed and occupied. Before Villa Las Lomas is completed this year, it will be serviced by a 10-acre shopping center, with a huge supermarket and the first Woolworth's on the island, and an elementary school, church and park areas.

The $11,000,000 development, one of several in the San Juan area, is jointly financed by the Ibec Housing Corp., of which Winthrop Rockefeller is chairman, and the Corbetta Construction Co., both of New York City. Henry C. Rexach, San Juan general contractor, is in charge of construction operations, which also include such related activities as grading and pouring concrete streets, erecting electric service poles, laying water mains and sewer pipes.





Preliminary plans for two "houses of tomorrow" have resulted from two M.I.T. research projects — one of them in "plastics in building" and the other in "space heating with solar energy"

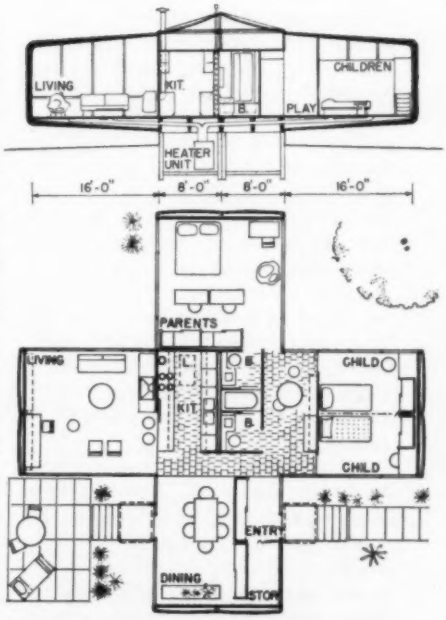
M.I.T. DESIGNS A PLASTIC HOUSE AND A SOLAR HOUSE

THE PLASTICS HOUSE (above left) was described as "a revolutionary type" at a Building Research Institute Plastics Study Conference at the University of Michigan in November by Richard Hamilton, director of the M.I.T. plastics research project (sponsored by Monsanto Chemical Co.), and Marvin Goody, staff architect who created the design.

The basic element of the house will be an 8- by 16-ft plastic modular unit molded in a U shape, with one side serving as the floor, one side as the ceiling and roof, and the bottom as the outer wall. The unit could, of course, be molded to larger dimensions, or smaller, but 8 ft is the maximum height that can be transported, according to shipping regulations. In the simplest plan, pairs of units can be joined and cantilevered from a 16-ft square utility core, which will contain baths, kitchen, laundry and heating facilities. A minimum of site excavation will be necessary for the concrete-based core. A variety of floor plans is possible with combinations of the design components and the addition of one or more cores.

The actual plastic materials from which the house will be fabricated have not been determined as yet. However, it is likely that the U-shaped modular unit will be formed by reinforced plastic sheets sandwiched around foamed plastic. A variety of transparent and translucent plastic panels will be used on both the exterior and interior of the house. Conduits, piping and ducts, much of it integrally formed into wall and floor sections, will be made of flexible and corrosion-resistant plastic.

Still the most perplexing problem confronting the research staff is the method of joining the modular units. It is likely that gaskets and stripping of extruded plastic will be used.

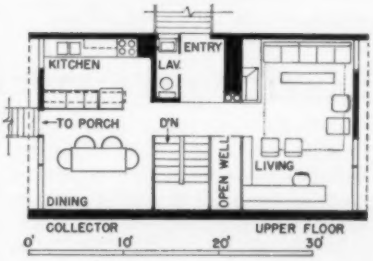


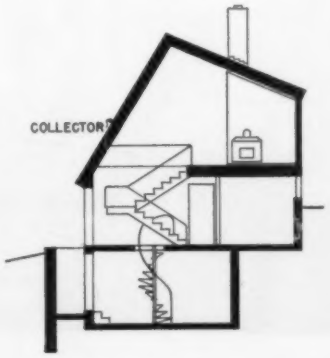
THE SOLAR-HEATED HOUSE (above right) was discussed at the World Symposium on Applied Solar Energy at Phoenix, Ariz., in November by Lawrence B. Anderson, professor of architecture at M.I.T. and chairman of the Committee on Space Heating with Solar Energy (see AR, Nov. 1955, page 230).

The solar energy collecting system in the house, devised to produce the greatest amount of cheap heat during New England's cold and often cloudy winters, will consist of two layers of glass over a black-painted copper sheet which is tilted (at an angle of about 60 deg for New England) and faces south. The heat absorbed by the black-surfaced copper will be transmitted to water passing through copper coils fastened to the underside of the copper. This water, at a temperature of about 150 F, will flow to a 1500-gal tank in the cellar. From there it will be pumped to a heat exchanger, where a fan will transfer the heat to air, which will be carried through the house in ducts. The controls and piping will be arranged so that, whenever heat from the sun is insufficient to keep the house warm, an oil furnace will turn on automatically and heat the water to the required temperature. The domestic water system will also be connected to both the solar collecting system and the furnace so that oil will augment the sun whenever it is needed.

As can be seen in the rendering above, the house will be built on a hillside, with the main entrance into the upper floor, where living room, dining room and kitchen will be located. Three bedrooms and a bath will be located on the lower floor. There will be large windows facing the south on this floor and large windows at the east and west ends of the house on both floors. Exterior walls not of glass will be of vertical siding.

It is expected that the solar house will be built this winter and will be sold to a family who will live in it while data are gathered by M.I.T. researchers.







MINIATURE SWITCHBOARD WILL LIGHT SMALL STAGE

LIGHTING OF SMALL STAGES — in schools, community theaters, hotels and clubs — with a maximum of variable effects and a minimum of bulky equipment and cost appears to be a practical possibility with a miniature portable switchboard developed by Gerald B. Ewing, lighting consultant, of Wilton, Conn.

The portable switchboard system has been installed in the Hotel Taft in New York, so that bandleader Vincent Lopez can have complete and simplified control over the lighting effects on his bandstand. As shown in the photographs at the right, the miniature switchboard can be placed near the keyboard on the piano and operated with one hand while Mr. Lopez is playing with the other hand, or it can be moved to the front of the piano for easy access while he is conducting.

In essence, the board consists of two banks of low-voltage, remote-control switches, each of which lights a specific area of the stage with a particular effect. Banks of lights are located above and to the front of the bandstand and can be varied to produce special lighting effects on the side and backdrops, which are draped with pale green and yellow.

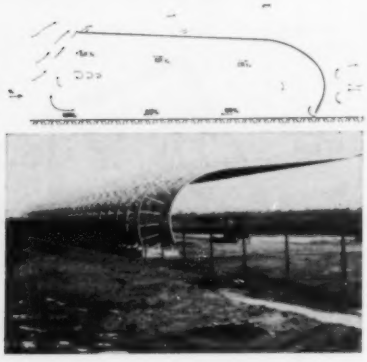
The portable switchboard is wired directly through larger equipment — transformers and relays — which actually operate the banks of lights. In addition, there is also a motor-controlled auto-transformer which regulates the amount of current to each bank. By means of this auto-transformer, a variable lighting load can be dimmed, a major advantage over resistance dimmers, which must be loaded to capacity in order to produce smooth dimming curves. In addition, cross-fading from one bank to the other is possible. The transfer switch which actuates the auto-transformer is located between the red and green indicator lights at the top of each bank of switches. While one bank is in operation, the other bank can be pre-set to the desired lighting effect. Then, by throwing the transfer switch, the operating bank can be cross-faded to the pre-set at any speed. If desired, the cross-fade can be stopped at any point, with the red and green indicator lights showing the proportion of current being taken by each bank. Or, if a quick change is called for, the switch can be flicked so that one bank will replace the other without any dimming.



The combinations of effects possible with this small switchboard are probably sufficient for any production that would be staged by small theater groups, bands, etc. Sealed beam lamps, with spread lens action and color filters, give a wide range of beam pattern, intensity and color. The major advantages of the system are, of course, its size and portability (and cost), so that it can be operated directly from the stage, replacing the larger flexible boards with their many switches, dimmer handles and plugs.

CANTILEVERED STEEL GARAGE SHELTERS FREE INTERIOR SPACE

GARAGE SHELTERS, called "Elascon Aero-garages" because they enclose so much unobstructed interior space, consist of a curved inner steel skin attached underneath external cantilevered frames,



thus eliminating the need for columns or internal supports. Described in the July–August 1955 issue of the Belgian publication *Acier Stahl Steel*, the Elascon Aero-garage is constructed on aerodynamical principles, based on wind-tunnel tests to determine roof loads and wind patterns. As shown in the drawing at the left, when wind is blowing toward the open end of the garage, an opposing draught is set up to deflect the wind pattern up and over the floor. The most unfavorable effects have been shown to result from lateral wind, and so it has been recommended that panels enclose the sides of short garages.

The frames of the garage, which are completely shop-welded, consist of two curved channels joined by steel tubes welded to their backs. They are spaced about 10 ft apart and anchored to concrete foundation blocks. The skin plating of galvanized sheet steel is attached to the frames by bolting to angle lugs which are affixed to the lower channels. The skin is stiffened by angle bars between the frames. The lower edge of the skin is indented somewhat to prevent penetration of rain water and raised to provide air passage and thus reduce the draught effect. The depth of garages intended for use by private cars is about 20½ ft.

The light weight, strength and ease of fabrication of this type of enclosure, and its maximum utilization of available space, may make it practical for use as storage sheds, market halls and other types of buildings as well as garages.

(*More Roundup on page 218*)

WALL AND CEILING PANELS, MOVABLE WALLS AND PARTITIONS FEATURE EASE OF INSTALLATION

Rigid, Hollow-core Panels for walls and ceilings combine two sheets of *Masonite* tempered hardboard and an interlocking wood core. The face of the panel has a durable plastic finish in plain color or wood pattern, and the back sheet is sealed and baked. Rigid and self-aligning, *Korelock* paneling is applied directly over open framing or over furring. No backup materials, splines, clips, mastic, bracing or division moldings are needed. The paneling is fastened along the tongue edge with screw-type nails driven through pre-drilled holes, as shown in the illustration above right. *Korelock* is said to have good resistance to sound transmission, soiling, moisture and wear, and can be cleaned by damp-wiping. It is made in two sizes — 2 by 4 ft and 2 by 8 ft, with nominal $\frac{5}{8}$ in. thickness. Harmonizing moldings of metal and *Presdwood* are available. *Marsh Wall Products, Inc., Dover, Ohio.*





Movable Walls and Partitions can be erected by the Attwood system of space division using *Unistrut* steel channels combined with any standard paneling material — plywood, hardboard, pressed wood, plastics, wallboard, metal, glass, etc., from $\frac{1}{8}$ to $\frac{1}{2}$ in. thick. Any type of framing pattern can be raised, including floor-to-ceiling, open ceiling, 7-ft office divider, cubicle, railing, etc. The Unistrut channels are screwed to floor and wall abutments and the upright and horizontal channels connected with a simple, positive-locking nut and bolt. The panels are slipped into place, and molding strips and corner cover plates complete the installation. Whenever an adjustment is necessary, the partitioning can be taken down, changed or removed, as shown in the illustration below left. Bulletin 900 available. *Unistrut Products Co., 1013 W. Washington Blvd., Chicago 7, Ill.*

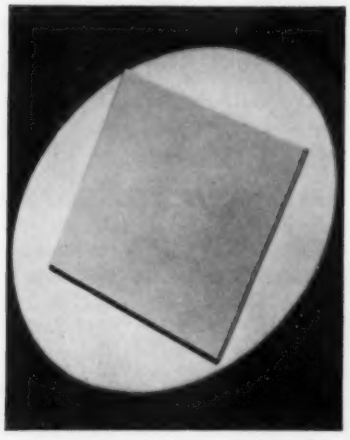
NEW CEILING PANELS: THEY BOAST INCREASED LIGHT REFLECTANCE AND SOUND ABSORBENCY

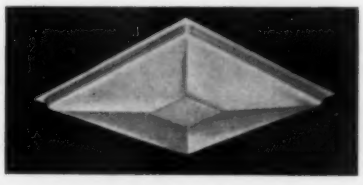
Textured Sonofaced Acoustical Tile (below left) has a soft white finish which has a light reflectance 10 points greater than that of regular *Sonofaced Tile*. It is encased in a plastic film which can be cleaned any number of times without impairing its noise control function and requires no painting. The panels are also said to be fire-safe. They are available in 12- by 12-in. and 12- by 24-in. tiles and as 24- by 48-in. ceiling boards. *Owens-Corning Fiberglas Corp., Toledo 1, Ohio.*

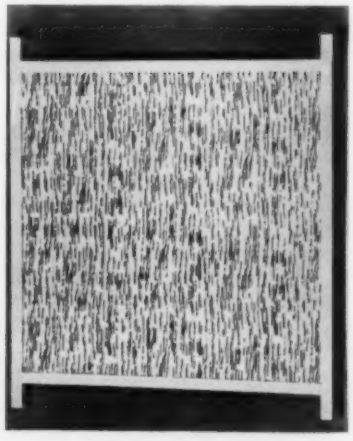
Translucent Plastic Light Panels (below center) are of such light weight (a 2- by 2-ft pan, such as that shown below, weighs only 5.6 oz) that both Underwriters Laboratories and Factory Mutual Laboratories have approved their use under sprinkler systems, according to a report from the manufacturer. The inherent properties of the *Milite* panels cause them to shrink and drop from their frames when exposed to flame. Normal maintenance can be handled simply, because each panel can be removed separately for cleaning and bulb changes. Accelerated aging tests have shown long life with no apparent color change. The panels are also made in 1- by 4-ft and 1- by 1-ft sizes. *Kirby Cogeshall Steinau Co., 606 East Clybourn St., Milwaukee, Wis.*

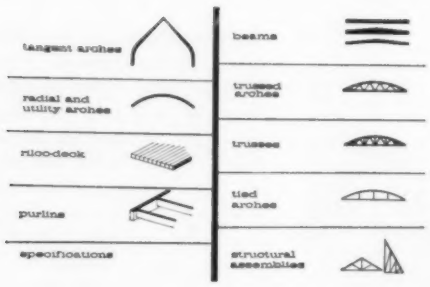
Stria-Colored Steelacoustic (below right) is a new sound-conditioning panel that combines color, effective noise reduction, incombustibility, economy and easy maintenance, according to the manufacturer. It is a white baked enamel steel panel with overlay striations of black, green or brown. Sound passes through the steel facing and into the absorbent material behind it. It is installed on the Celotex T and T Suspension System, a suspended ceiling grid also finished in white baked enamel. The panels are produced in 2- by 2-ft squares and can be washed and painted without damage to their sound absorption. Diffusers, light fixtures, sprinkler heads and other standard outlets can be incorporated into the ceiling plan. *The Celotex Corp., 120 So. LaSalle St., Chicago 3, Ill.*

(More Products on page 230)









LAMINATED WOOD STRUCTURAL MEMBERS
As shown in the illustration at the left, cut from the index of "Glued Laminated Wood and Solid Timber Arches, Beams, Trusses," a very complete coverage of wood structural members is offered in this well-illustrated and informative 24-page booklet. It presents data and construction details on the use of laminated members for schools, churches, gymnasiums, residences, industrial and commercial buildings, and includes photographs of typical installations. AIA File 19-B-3. *Rilco Laminated Products, Inc., 2591 First National Bank Building, St. Paul 1, Minn.*

Marble Wall and Floor Tile, with color sample plates and suggested specifications, is presented in an 8-page brochure (AIA File 23-N). A 16-page brochure, *Marble for the Home* (AIA File 22-A), pictures marble installations and includes a membership list of the *Marble Institute of America, Inc., 108 Forster Ave., Mount Vernon, N. Y.**

Air Conditioning and Refrigeration Equipment. A new packet of literature, file-separated by categories of *Spotaire* units, air conditioning units, air conditioning coils, evaporative condensers, commercial refrigeration, product coolers and water chillers, is available from *Drayer-Hanson Inc., Box 2215, Terminal Annex, Los Angeles 54, Calif.*

Plywood Paneling is the seventh in a continuing series of brochures on architectural woodwork, giving characteristics, construction of panels, suggested specifications and application. The 8-page brochure, AIA File 19-E-6, was prepared by a Technical Advisory Committee made up of members of the *Architectural Woodwork Institute, 332 So. Michigan Ave., Chicago 4, Ill.*

Aluminum Projected Window Designs and curtain wall systems are described, with details, specifications and sizes, in a 28-page catalog (AIA File 16-E) which will be supplemented by a designer's file containing full-size details and other pertinent data. *The William Bayley Co. (attn: Mr. C. H. Thompson, Gen. Mgr. of Sales and Distribution), Springfield, Ohio.**

Mechanical Folding Bleachers. Design and construction features of *EZ-A-Way* bleachers, with architects' specifications and construction diagrams, are presented in a brochure from *Berlin Chapman Co., Bleacher Div., Berlin, Wis.**

Sash and Door Controls is a 24-page indexed catalog which gives essential data and descriptions of door controls and hardware manufactured by *Sargent & Greenleaf, Inc., Rochester 21, N. Y.*

Zone Heating. *SelecTemp* self-modulating zone heating, for thermostatically controlling every room from a central heating system, is described in an 8-page brochure from *Iron Fireman Mfg. Co., Cleveland 11, Ohio.*

Weatherstripping. *Schlegel Certified Woven Pile Weather Seals* for doors and windows are presented, with catalog pages of U shapes, flat shapes, plastic shapes and special shapes, in Catalog 6 from *Schlegel Mfg. Co., Rochester 7, N. Y.*

Heat Flow by Radiation in Buildings is a 48-page, illustrated manual (AIA File 37-C-3) covering many of the problems connected with heat flow, the conservation of fuel for heating or of power for air conditioning and the maintenance of comfort in summer and winter. It is written by Alexander Schwartz, president of *Infra Insulation Inc., Dept. R, 525 Broadway, New York 12, N. Y.*

Trends in Residential Sliding Door Hardware (AIA File 27-A) is a comprehensive study treating design features, job conditions and recommended applications of sliding door hardware, written for *Hardware Consultant* by Kurt Klopstock, Director of Market Research of *Grant Pulley & Hardware Corp., 31-85 Whitestone Pkwy., Flushing, L. I., N. Y.**

Extruded Aluminum Skylights are detailed and described, with specifications and standard construction features, in a 4-page illustrated brochure from *Super Steel Products Co., 1244 N. 4th St., Milwaukee 12, Wis.**

High Temperature High Pressure Hot Water Heating Manual (No. 2685) contains an extensive, indexed discussion of the subject, with well-arranged diagrams and tabular material. 28 pp. *C. A. Dunham Co., 400 W. Madison St., Chicago 6, Ill.**

Granite in the Hospital is a 10-page brochure which develops a series of hospital sketches, made by an AIA member, illustrating typical granite applications within and without, analyzing each in terms of the material's characteristics of durability, water resistance and appearance. *Cold Spring Granite Co., Dept. KP, Cold Spring, Minn.**

Building Facing Panels. *Macolta* building panels, made up of a metal face sheet backed up with lightweight concrete and edged with either stainless steel or bronze interlocking tongue and groove molding, are detailed and illustrated in a 12-page brochure from *Maul Macolta Corp., 1640 E. Hancock, Detroit 7, Mich.*

Corrugated Asbestos-Cement. An "Idea File" showing different types of installations suitable for *Corrugated Asbestone* is available and will be followed up monthly with additional inserts. Gold Bond Tech. Bulletin 2032 (AIA File 12-F). *National Gypsum Co., Corrugated Asbestone Dept., P. O. Box 5257-B, New Orleans 15, La.**

Stoker Heating. *The Logic of Stoker Heating* is a 12-page brochure (Form W-301) which discusses the reasons for considering stoker-fed coal heat for schools, institutions and public buildings. *The Will-Burt Co., Dept. 2, Orville, Ohio.*

** Other product information in Sweet's Architectural File, 1955.*

(Continued on page 264)

Another **Adlake** aluminum window installation



St. Mary of the Woods Church, School and Convent, Chicago, Illinois
Architects & Engineers: Gaul & Voosen. General Contractor: Slezak Construction Co.

Adlake
PROVEN QUALITY WINDOW
This window meets or exceeds all quality industry specifications for aluminum windows.
THE Adams & Westlake COMPANY Elkhart, Indiana

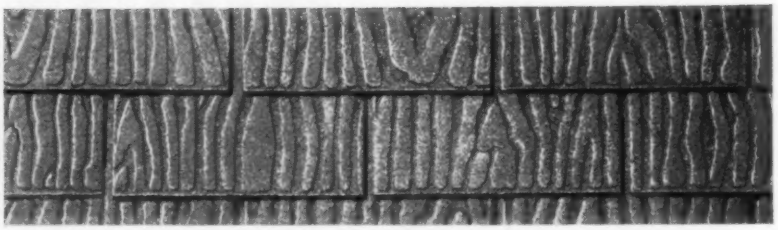
- **Minimum air infiltration**
- **Finger-tip control**
- **No painting or maintenance**
- **No warp, rot, rattle, stick or swell**
- **Guaranteed non-metallic weatherstripping (patented serrated guides on double hung windows)**

Adlake TRADE MARK
99th year of serving the transportation, building and control industries

The Adams & Westlake Company
ELKHART, INDIANA • Chicago • New York • Established 1857

Growing idea for non-residential roofing, too—

CERTAIN-TEED WOODTEX ASPHALT SHINGLES





CHURCHES—Redeemer Lutheran Church, Bartlesville, Okla. The rugged appearance of Woodtex Shingles lends itself to church architecture. Builder and Applicator: Cooper & Dorris Const. Co. Supplier: Overlees-Krause Lbr. Co., both of Bartlesville.



SCHOOLS—"Garfield Center" at the Erie College for Women, Painesville, Ohio. Woodtex Shingles provide wind resistance and a pleasing pattern for this long, low pitch roof. Roofing Contractor: Guaranteed Roofing & Sheet Metal Co.



MOTELS—York Motel, Parma Heights, Ohio. The fire resistance of Woodtex Shingles is an important safety feature here. Builder and Applicator: Precision Housing Corp., Parma Heights. Supplier: Askue Supply Co., Cleveland.



TAVERNS—Valley Forge Tavern, King of Prussia, Pa. Woodtex Shingles in handsome gray blend add distinction to this popular stopping place. Woodtex Shingles come in a beautiful range of popular new colors and pastel blends. Applicator: Thomas Lord, Collegeville, Pa.

Look where you'll find Woodtex Asphalt Shingles today. On churches, shopping centers, apartment houses, college and school buildings, motels—as well as on many of the finest homes.

It's an important trend... this increasing use of Woodtex in non-residential construction. Don't overlook it. Certain-teed Woodtex is the fire-resistant asphalt shingle with the genuine built-up graining. This graining acts as reinforcing ribs, which add strength, rigidity and weight—give extra protection against wind and weather you can't get with ordinary asphalt shingles. Woodtex Shingles are heavy and durable, and their handsome, massive appearance and beautiful range of new colors can add distinction to any building.

Are you handling Woodtex Shingles for non-residential roofing? A line to Certain-teed now will bring full information on why it pays.

Certain-teed

REG. U.S. PAT. OFF.

Quality made Certain... Satisfaction Guaranteed

CERTAIN-TEED PRODUCTS CORPORATION

ARDMORE, PENNSYLVANIA

EXPORT DEPARTMENT: 100 EAST 42ND ST., NEW YORK 17, N.Y.

ASPHALT ROOFING • SHINGLES • SIDING • ASBESTOS CEMENT ROOFING AND SIDING SHINGLES
GYPSUM PLASTER • LATH • WALLBOARD • SHEATHING • ROOF DECKS • FIBERGLAS BUILDING INSULATION
ROOF INSULATION • SIDING CUSHION

FINE HARDWOODS FOR ARCHITECTURAL USES — 1

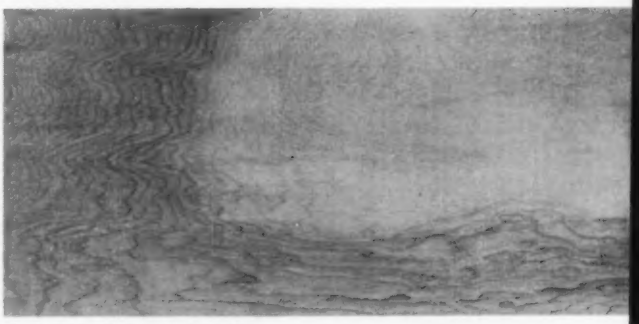
By Burdett Green, Executive Vice President, Fine Hardwoods Association and James Arkin, A.I.A., Consultant, Architectural Woodwork Institute

BIRCH, DOMESTIC AND CANADIAN

There are two species of commercial importance that are often marketed together, as listed below. They are so similar that it is not necessary to specify them. However, one should specify either "Natural Birch," "Selected White Birch" or "Selected Red Birch." Natural Birch combines both sapwood and heartwood. Selected White Birch includes only sapwood, and Selected Red Birch only heartwood.

BIRCH, SWEET (*Betula lenta*) — Black Birch, Cherry Birch
Source: Mainly from Adirondack and eastern Appalachian areas, although also as far south as northern part of Gulf States
Color: Brown tinged with red; thin, light brown or yellow sapwood
Pattern: Grain distinct but not prominent
Characteristics: Heavy; very strong and hard; close-grained
Uses: All cabinetwork where strength and hardness is desired
Availability: Abundant as both veneer (rotary, sliced) and lumber
Price Range: Medium

BIRCH, YELLOW (*Betula alleghaniensis*, formerly *Betula lutea*) — Gray Birch, Silver Birch, Swamp Birch
Source: Canada, Lakes states, New England south to North Carolina
Color: Cream, light brown tinged with red; thin, nearly white sapwood
Pattern: Plain and often curly or wavy
Characteristics: Heavy; strong; hard; close-grained; even texture
Uses: Interiors; furniture; doors; store fixtures; accessories; etc.
Availability: Veneer (both rotary and sliced) and lumber abundant. As veneers, sapwood of rotary birch is sold as "selected white" and heartwood as "selected red." Greater volume produced is "natural birch," and contains a normal combination of color tones
Price Range: Medium



Birch, Natural, rotary (1 piece)



Birch, Selected White, rotary (1 piece)

MAPLE

The three species of maple described below are grown in widely separated areas and vary greatly in physical properties.

MAPLE, HARD (*Acer saccharum*) — Birds Eye Maple, Northern Maple, Rock Maple, Sugar Maple
Source: Lakes states, Appalachians, Northwest U. S., Canada
Color: Cream to light reddish-brown heartwood; thin white sapwood tinged slightly with reddish-brown
Pattern: Usually straight-grained; sometimes found highly figured with *curly, blistered, quilted, birds eye* or *burl grain,* scattered over entire tree or in irregular stripes and patches
Characteristics: Heavy; hard; strong; close-grained; tough; stiff; uniform texture. Excellent resistance to abrasion and indentation
Uses: Interiors; furniture; fixtures; flooring; decorative inlays
Availability: *Plain maple* veneer (quartered, sliced, half-round, rotary) plentiful. *Figured maple* (including birds eye, butts, etc.) veneer (quartered, sliced, half-round, rotary) rare
Price Range: *Plain maple* — medium. *Figured maple* — costly



Maple, plain rotary (2 pieces, book-matched)

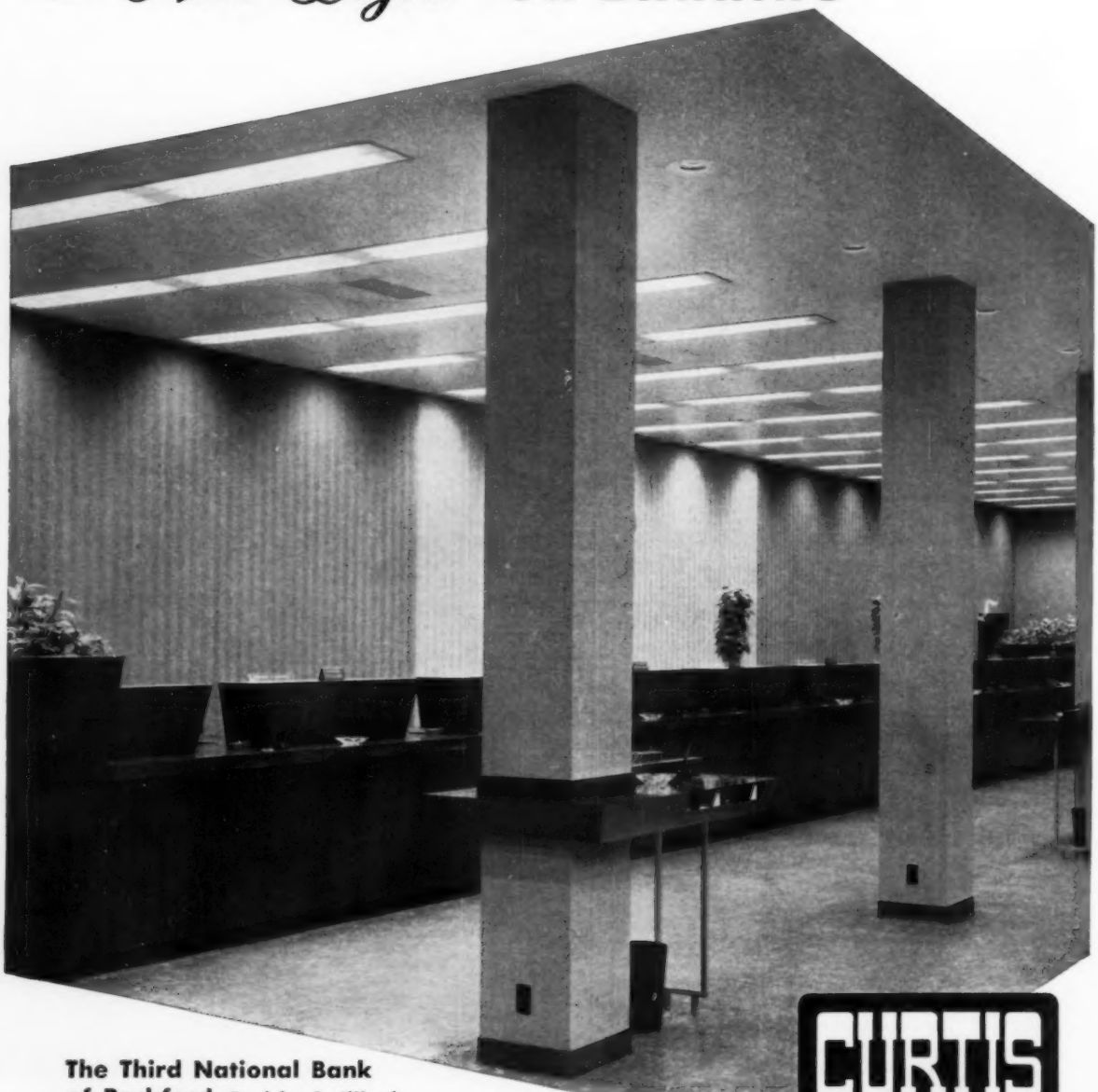
MAPLE, SOFT (*Acer saccharinum*) — Silver Maple
Same general characteristics as hard maple, but not nearly so hard or strong. Usually shows considerable dark (mineral) streaks.
Availability: Plentiful as both veneer and lumber
Price Range: Medium to inexpensive

MAPLE, OREGON (*Acer macrophyllum*) — Big Leaf Maple
A true maple, but not so hard or strong as silver maple.
Source: Pacific Coast and Southern Canada
Availability: As both lumber and veneer, locally. As figured veneers (blistered, burl, etc.), rare
Price Range: Inexpensive for plain types. Moderate to costly for quilted and burls



Maple, birds eye (1 piece)

A *New Light* ON BANKING



The Third National Bank of Rockford, Rockford, Illinois

has put a new light on their banking operation with Curtis Alzak aluminum low-brightness Eye-Comfort® troffers. And just as the Third National put on a new light, so have others of America's outstanding banks — banks like the First Wisconsin National Bank of Milwaukee, the First National in Chicago and the Republic National in Dallas. What is this new light? First, its basis is the Curtis Alzak aluminum low-brightness Eye-Comfort® troffer. The low-brightness of this fixture properly installed assures that 90-96% of the people will be visually comfortable. That means increased productivity because of less time lost due to headaches, eye-strain and fatigue. Guaranteed for a lifetime, Curtis Alzak low-brightness troffers provide superior light control. They're color stable and tarnish-free. Maintenance is a dry-cloth operation. *That's* the new light by Curtis. *That's* why bankers and architects the country over have made Curtis lighting the standard of quality bank lighting over the past 60 years and *that's* why more banks are depending on Curtis for their lighting dividends in the years to come. If you're planning to light a new bank or relight an existing one, write Department A3-TN for more detailed information.

Architect: Hyland-Hubbard, Rockford, Illinois. Electrical Contractor: Elmer A. Johnson, Wilson Electric Co., Rockford, Illinois

CURTIS LIGHTING, INC.

6135 WEST 65th STREET
CHICAGO 38, ILLINOIS

IN CANADA:

195 WICKSTEAD AVENUE
TORONTO 17, CANADA

Name_____

Address_____

City_____ State_____

A3-TN

FINE HARDWOODS FOR ARCHITECTURAL USES — 2

By Burdett Green, Executive Vice President, Fine Hardwoods Association and James Arkin, A.I.A., Consultant, Architectural Woodwork Institute

MAHOGANY

An often misused name, applied to many woods not of the mahogany family. The three authentic commercial species of mahogany are *Swietenia mahogani, Swietenia macrophylla* and *Khaya ivorensis.* (All true mahoganies are the *Meliaceae* family, genera *Swietenia* or *Khaya.*) Their descriptions follow:

MAHOGANY, AFRICAN (*Khaya ivorensis*)

Source: Africa (Ivory Coast, Gold Coast, French Cameroon, Cape Lopez, Nigeria)

Color: Light pink to reddish-brown and tannish brown

Pattern: Although pores are distributed, this wood produces a very distinct, pleasing grain. The most lavishly figured mahogany offered in plain stripe, broken stripe, mottle, fiddleback, fine crotches and faux swirl

Characteristics: Available in great lengths and widths; milder textured with slightly larger pores than other mahogany species; relatively hard; works well; highly lustrous; polishes well; durable

Uses: Interiors, furniture; accessories and art objects; etc.

Availability: Veneer (quartered, sliced, half-round, rotary) abundant. Lumber abundant

Price Range: Medium; costly for highly figured veneers

MAHOGANY, CUBAN (*Swietenia mahogani*)

One of the finest of the several mahogany species. However, the exportation of this species from Cuba is no longer permitted

Source: Cuba, also throughout the West Indies

Color: Light red; yellowish-tan when cut; darkens rapidly to deep rich golden brown or brown-red; exceptionally fine color

Pattern: Highly figured, mottled, fiddle-back crotches, also plain stripes

Characteristics: Heavier and harder than the other mahoganies; wears exceptionally well; extremely durable; close-grained; takes excellent finish; has good strength and bending properties; ideal wood for turning and carving

Uses: Fine cabinetry

Availability: Haiti, Puerto Rico, and the Dominican Republic

MAHOGANY, TROPICAL AMERICAN, including **PERUVIAN** and **BRAZILIAN MAHOGANY** (*Swietenia macrophylla*). (Brazilian Mahogany marketed as Amazon Mahogany)

Source: Mexico, Brazil, Peru and Central America (especially Honduras)

Color: Varies from a light reddish or yellowish-brown to a rich, dark red, depending upon country of origin and situation. Most supplies tend to be yellowish-tan, changing on brief exposure to rich, golden brown

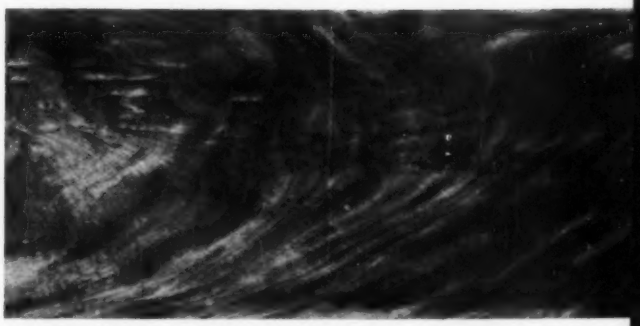
Pattern: A considerable variety of figures, similar to African mahogany except crotches are not readily available. Straighter grain generally. Location influences appearance also

Characteristics: Lighter and softer than Cuban; mostly straight-grained but even when interlocked is exceptionally stable; more mellow texture than Cuban (West Indian); extremely good strength properties; works well; stains and finishes well; durable and decay-resistant. Central America produces more figured logs for fancy veneers

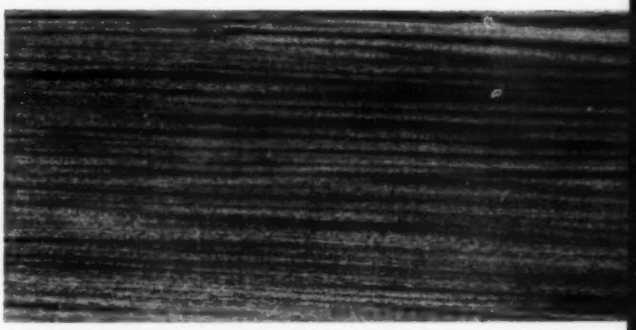
Uses: Paneling; furniture; fine joinery; exterior uses

Availability: Central American veneer (quartered, sliced, half-round) abundant. Lumber plentiful. Brazilian and Peruvian plentiful

Price Range: Inexpensive to medium



Mahogany, African, swirl (1 piece)



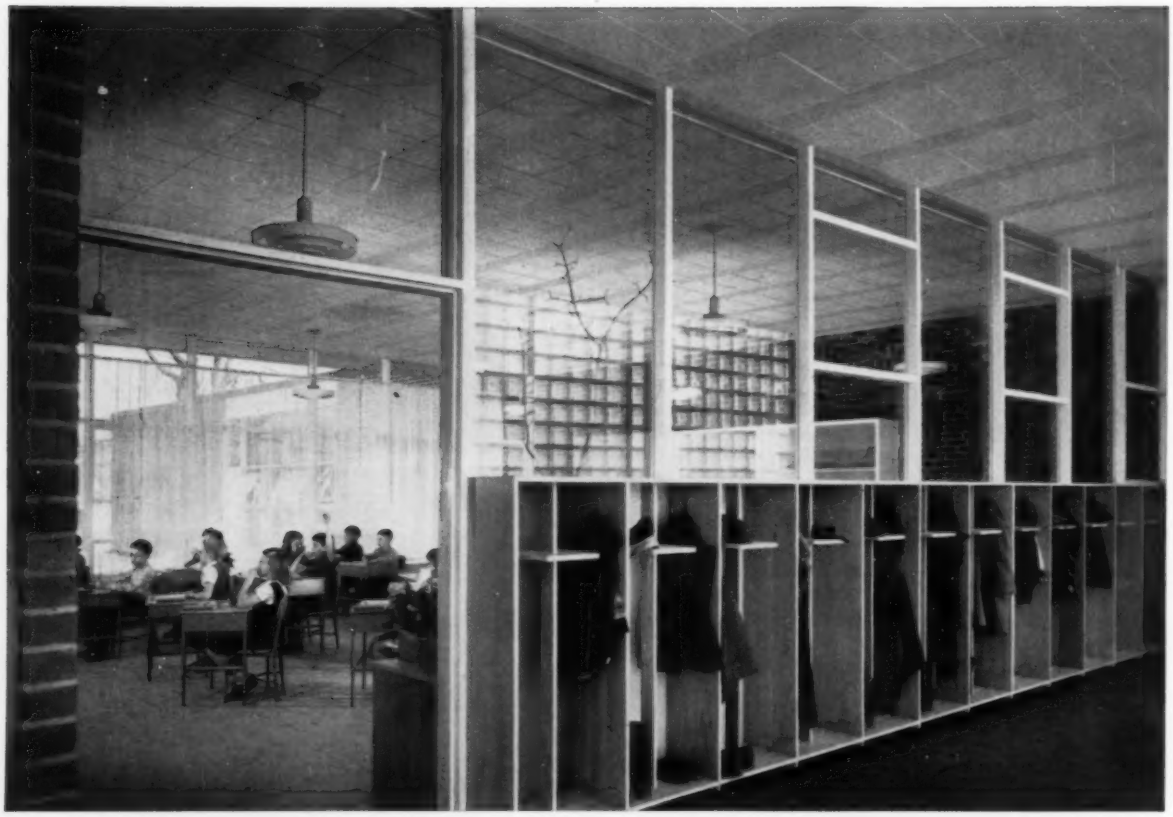
Mahogany, African, quartered ribbon-striped (1 piece)



Mahogany, Tropical American, plain flat cut (1 piece)



Mahogany, Tropical American, figured flat cut (1 piece)



HOW STEEL JOISTS HELPED LOWER COSTS OF SCHOOL ADDITION AT DARIEN, CONN.

The new addition to the Holmes Elementary School in Darien, Conn., containing classrooms, a multi-purpose room and kitchen, is modern in every respect, but well-integrated in scale and materials with the older building. No additional ground was available for the new wing, but the architects were able to preserve most of the original play area and, by using large areas of glass, obtain maximum daylight for all rooms.

When the new wing was planned, comparative cost analyses were made of various types of construction. Based on the results of those studies, it was decided to build the addition with a structural-steel frame and open-web steel joists.

The use of Bethlehem Open-Web Joists helped to bring savings in two ways. Actual construction costs were lower because Bethlehem Joists reached the job site ready for immediate placing, without falsework. Ducts, piping and wiring could be run right through the open-webs.

In addition, Bethlehem Steel Joists contribute to keeping future maintenance at a minimum. Sturdy and rigid, these steel joists won't sag or warp, and they help promote fire-safety throughout the structure.



Architects: Ketchum, Gina and Sharp; *Consultants:* Moore and Hutchins; *Structural Engineers:* Severud-Elstad-Krueger—all of New York; *General Contractor:* Sam Grasso Co., Inc., Darien.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM OPEN-WEB STEEL JOISTS

BETHLEHEM STEEL

FINE HARDWOODS FOR ARCHITECTURAL USES — 3

(To be continued in a later issue)

By Burdett Green, Executive Vice President, Fine Hardwoods Association and James Arkin, A.I.A., Consultant, Architectural Woodwork Institute

OAK, AMERICAN

Includes several species from the Red Oak and White Oak groups. Except for source and color, Red Oak and White Oak, the two leading American species, are very similar. Characteristics they have in common are:

Pattern: Quartered oak has a striking "flake" pattern caused by extremely large and wide rays that reflect light. Plain flat-sliced or sawn oak has an attractive figure of stripes and leafy grain caused by the distinct layers of springwood and summerwood and the large pores, especially concentrated in the springwood. Rift-cut (half-round) oak has a fine pin stripe. Rotary-cut oak has a distinct watery figure with great contrast

Characteristics: A heavy, ring-porous hardwood with larger, more prominent pores in the springwood than summerwood; very strong and very hard; stiff and heavy; durable under exposure; great wear-resistance; holds nails and screws well. Red and white oak look very similar when finished, and because of its large pores, oak takes a great variety of fine filled or textured finishes

Uses: Flooring (both solid and plywood tiles); furniture; paneling; general construction; display and store fixtures; handles

Availability: Veneer (quartered, sliced, half-round, rotary) plentiful. Lumber available

Price Range: Medium

OAK, RED (*Quercus borealis*)

Source: Throughout the eastern United States; especially in the Appalachians, Ohio, Kentucky

Color: Slightly redder tinge than white oak (though hard for an untrained eye to tell), and more uniform in color

Pattern: Flake figure less prominent than white oak

Characteristics: Slightly coarser grain, with large, rounded, open pores. Easier to finish than white oak, though both are excellent

Uses: All the same purposes as White Oak

OAK, WHITE (*Quercus alba*)

Source: Entire eastern United States, especially produced in the Central States and down through the Appalachian region

Color: From light brown with a grayish tinge in the heartwood to shades of ochre in the sapwood

Pattern: More pronounced and longer rays than red oak, and more frequently rift-sawn for the comb-grain, pin-striped figure than red oak. Occasionally crotches, swirls and burls

Characteristics: Pores are angular and very numerous and filled with a glistening substance called tyloses, which makes this wood especially suitable where water-resistance is required. Tannic acid in the wood protects it from fungi and insects. Closer grained than red oak

Uses: Nearly all common uses of hardwoods, and especially popular where strength and durability are required. Also for watertight or water-resistant purposes

OAK, ENGLISH BROWN will be treated in a later issue.

CHERRY, BLACK (*Prunus serotina*) — Rum Cherry, Wild Black Cherry

Source: Maine to Dakotas and Appalachians; production largely Pennsylvania to West Virginia

Color: Light reddish-brown

Pattern: Straight-grained; satiny; some figured. Small gum pockets are normal markings

Characteristics: Light; strong; rather hard; fine-grained

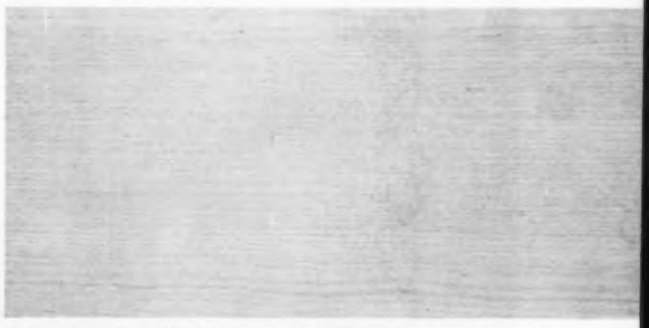
Uses: Woodwork; fine furniture

Availability: Veneer (quartered, sliced, half-round) plentiful. Very fine figured cherry available for architectural use. Lumber plentiful

Price range: Medium



Oak, White, plain flat cut (1 piece)



Oak, White, rift cut (2 pieces, book-matched)



Oak, White, quartered (2 pieces, book-matched)



Cherry, plain sliced (1 piece)

"For Beauty, Efficiency and Economy, You Can't Beat BILT-WELL Wood Products"

...say builders R. Van Bruggen of Kalamazoo, Michigan, and Clarence Andersen, of Emmetsburg, Iowa



The designer, Johnson & Howard Lumber Co. of Kalamazoo, of this attractive 11 unit motel in Plainwell, Michigan, wisely specified 100% weathertight BILT-WELL Double-Hung Windows and BILT-WELL Combination Doors. Architects and suppliers of BILT-WELL products on the job was the Johnson & Howard Lumber Company.



Only the BILT-WELL Double-Hung Window features built-in "thermostatic control." Weatherstripping is self-adjusting with changes in temperature and humidity to provide constant weathertightness with 1/10th the lifting effort.



Now the famous BILT-WELL Awning Window is better than ever! With the addition of a new fool-proof lever operator, the BILT-WELL offers a combination of simple operation, weathertightness and flexibility of arrangement that is unbeatable!



New louver doors add a distinctive new charm to the ever-popular BILT-WELL Wardrobe Storage Cabinets. Their design blends so well with the comfortable-homey style of decorating now so popular. They permit the active air circulation so desirable in storage areas.



The BILT-WELL Line—*WINDOW UNITS*, Double-hung, Awning, Casements, Basement, Storm and Screen. *CABINETS*, Kitchen, Multiple-use, Wardrobes, Storage, Vanity-Lavatory and Vinyl Countertops. *DOORS*, Exterior, Interior, Screens and Combination.

Both R. Van Bruggen and the Andersen Construction Company have recently completed motel jobs using BILT-WELL Products and both are enthusiastic about their many advantages.

Says Mr. Van Bruggen, "The fuel bill can often spell the difference between profit and loss for a motel operator. That's why it's very important that every unit be constructed as weathertight as we can make it. When we use BILT-WELL windows, we know we are getting an unbeatable combination of maximum protection against the weather and fool-proof operation. That goes for BILT-WELL combination doors, too!"

"Using the distinctive BILT-WELL Casement Windows on the Suburban Motel job added appreciably to the over-all beauty of the structure and also provided a window that is designed and manufactured to afford positive air-tight protection against the weather", says Clarence Andersen of the Andersen Construction Company.

Whether You're Designing a Motel, School, Institutional Building or a Private Residence, It Will Pay You to Specify BILT-WELL Wood Products!



BILT-WELL Casement Windows add traditional charm to this beautiful 20-unit motel in Emmetsburg, Iowa. The architectural department of the Andersen Construction Company designed the building. BILT-WELL Products were supplied by the Baker Lumber Company in Emmetsburg.





New BILT-WELL bathroom vanity offers the last word in built-in storage space for the modern bathroom. The three basic units are easily combined into arrangements to fit any space need or taste.



Available in four different designs, the popular Belvedere door is the "high fashion" door of the industry. The Belvedere is made of the finest kiln-dried Ponderosa Pine. Stiles are of durable 5-ply construction.



An excitingly different screen or combination door with a specially designed entrance door to match. Com-o-dor comes with removable storm panels and decorative grilles. With its companion entrance door, the Com-o-dor permits unlimited decorating possibilities.

BILT-WELL
WOODWORK
Manufactured by
CARR, ADAMS & COLLIER COMPANY
Established 1866 • Dubuque, Iowa

A/E ROUNDUP

(Continued from page 206)

Lift Slab Radio-TV Station. The lift slab method of construction has been used to raise concrete floor slabs poured in a waffle-honeycomb pattern for WFBC Radio-TV station in Greenville, S. C. The unusual pattern permitted electrical and mechanical facilities to be incorporated into the structure.





As shown in the photograph of the finished building, the roof and second floor were raised with staggered lines, in order to provide wings. Architect was Lyles, Bissett, Carlisle and Wolff of Columbia, S. C.

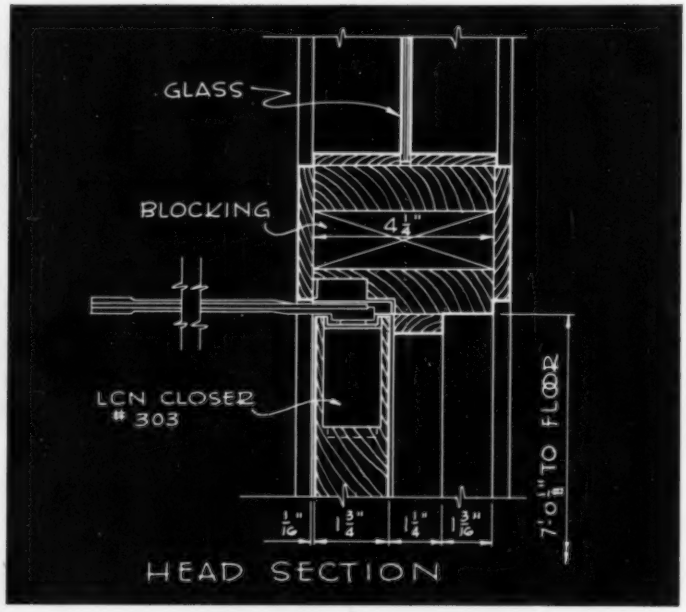
"Low Cost Comfort" National Test Program. "The average house, built anywhere in the United States, ought to be heated and cooled for $120 per year," according to a statement made recently by Robert Thulman, former mechanical engineer of FHA and HHFA. In order to test the validity of this statement, Owens-Corning Fiberglas Corp. has inaugurated a nationwide test program embracing from 100 to 125 houses in 20 cities in all climatic areas of the country.

The houses to be studied, selected after careful analysis, will be "comfort-engineered" by specialists to see that they conform to, or can be readily modified to satisfy, current engineering practices. This may involve orientation of the house on the lot, the use of effective shading devices, the correct use of insulation, summer ventilation of roofs and the correct sizing of equipment. Each house will be built with a central heating and cooling system. It will be sold only to a buyer who will allow publication of the house, the fuel and power costs and other data arising from the study. A two-year testing period will start with the date of occupancy.

By means of sub-meters installed by cooperating utility companies, records will be kept of the fuel and power consumption for heating and cooling separately from consumption for cooking, water heating, domestic appliances and lighting. Operating costs will be predicted for each house at the time it is accepted for test. Both predictions and actual measured results will be published at the midpoint and end of each heating and cooling season for each house. If estimates made the first year are substantially out of line with performance, the second year of the test will be used to try corrective measures. National averages and adjusted totals will be published, bringing all houses to a common basis of area and fuel cost.

The typical house will have 1200 sq ft of conditioned floor area (porches and garages excluded), but the test will include houses 200 to 300 sq ft above or below this average. Selling prices are expected to range from $10,000 to $25,000, depending in part on the value of the lot. Fuels will include gas, oil and electricity for heating and both electricity and gas for cooling.

(Continued on page 222)



CONSTRUCTION DETAILS

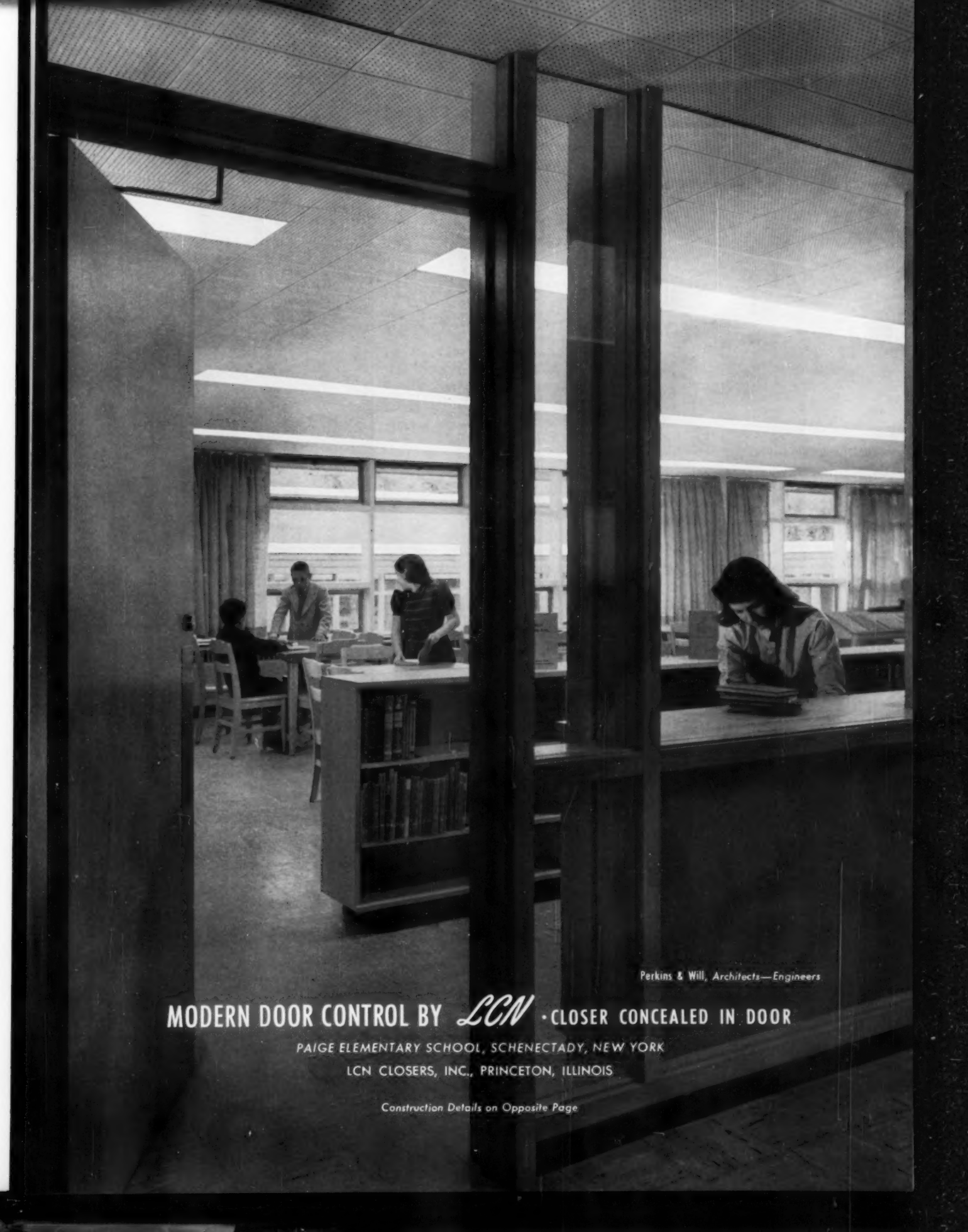
for LCN Closer Concealed-in-Door Shown on Opposite Page

The LCN Series 302-303 Closer's Main Points:

1. An ideal closer for many interior wood doors
2. Mechanism concealed within door; flat arm not prominent, and provides high closing power
3. Door is hung on regular butts
4. Closer is simple to install and to adjust
5. Used with wood doors; wood or metal frames
6. Practically concealed control at little more than exposed closer cost

Complete Catalog on Request—No Obligation
or See Sweet's 1955, Sec. 17e/L

LCN CLOSERS, INC., PRINCETON, ILLINOIS



Perkins & Will, *Architects—Engineers*

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LCN CLOSERS, INC., PRINCETON, ILLINOIS

Construction Details on Opposite Page

Lippincott & Margulies choose Bigelow carpet for famous Hotel Dennis

One of the country's top design firms is Lippincott & Margulies of New York.

Among its recent successes is the impressive Fjord Lounge of the Hotel Dennis in Atlantic City, N. J. Bigelow Empire Rexton was chosen as the carpeting. Both Walter Margulies, firm partner, and Robert de Veyrac, who supervised the work at the Hotel Dennis, agree on the outstanding quality of Bigelow Carpets. Mr. Margulies comments:

"The Fjord Lounge in the Hotel Dennis is a convertible luncheon-cocktail room. It was designed to provide a pleasant, attractive atmosphere that is as informal and individual as a friend's living room.

"Bigelow Carpet was especially applicable here. Previous performance has shown that it holds up well under heavy traffic. And Bigelow has always been most willing to produce special patterns in a wide range of colors, such as the one we designed for the Fjord Lounge, or re-color stock patterns when desired. Bigelow Carpet, we have found, is easy to install and provides excellent performance and appearance."

If you are planning an installation, consult your Bigelow trained carpet specialists for the right color, pattern and weave . . . at a price your client can afford. This service is available free of charge.

Get in touch with Bigelow today through the nearest sales office or by writing to Bigelow Contract Dept., 140 Madison Avenue, New York 16, N. Y.





Robert de Veyrac, on the left, head of Lippincott & Margulies' Hotel Design Department, consults with Walter Margulies. This prominent firm is credited with design accomplishments in foremost hotels in and out of the country, including: the Hotel Dennis in Atlantic City; the Hamilton Hotel in Washington, D. C.; the Conrad Hilton in Chicago; the Emerald Beach Hotel in Nassau, B.W.I.; the Hotel Gran Bolivar in Lima, Peru; the Curtis Hotel in Minneapolis and the Vanderbilt Hotel in New York City.



The charming Fjord Lounge of the Hotel Dennis in Atlantic City invites luncheon or cocktails. Bigelow's Empire Rexton is the carpeting.

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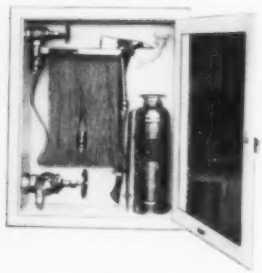
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*A.I.A. file 29e2 gives ready to use standard (and alternate) specifications for major items. Write for your copy. Meanwhile, check Sweets.

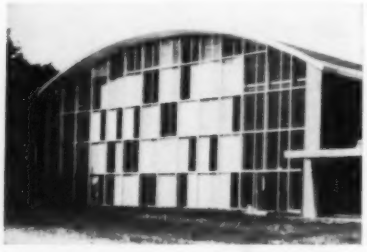
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Allenco Building • Room 702
566 West Lake Street
CHICAGO 6

A.E. ROUNDUP

(Continued from page 218)

Color and Distance. Color can influence the apparent distance of a surface, according to findings of a research project conducted by the Psychological Laboratory of The Johns Hopkins University Institute for Cooperative Research, in collaboration with Pittsburgh Plate Glass Co. The investigation revealed that a bright surface appears closer than a dark one, with a maximum average change in apparent distances of about 17 per cent. Highly saturated strong colors tend to appear closer than colors of low saturation, the pastels. Hues of longer dominant wavelength appear closer than those of shorter dominant wavelength.

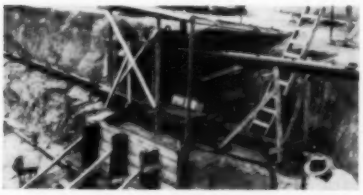


Double-faced Porcelain-enameled Panels combined with insulating glass and mounted in aluminum framing form both the exterior and interior walls of this high school in Paoli, Pa. The interior surface of the panels is blue, and the exterior is faced in various colors: dark blue, blue, black and yellow. Basically the panels, which were manufactured by Ingram-Richardson Mfg. Co., are composed of two 16-gauge porcelain-enameled steel faces laminated to a core of *Insulrock*. Most of the panels are quite large, the largest standard size being 7 ft 11⅝ in. by 3 ft 7½ in. Vinyl stops, vinyl spacers and caulking were used in mounting the panels in the frames. The architect was H. L. Shay & Associates, Philadelphia.

"Floating" Bank. The new branch of the Federal Reserve Bank of New York which is being erected in Buffalo, N. Y., is being constructed on a "drydock." Because of the high water table typical of the downtown Buffalo area — only 10 ft below ground level — all water had to be pumped out of the ground for a depth of 30 to 40 ft so that the concrete floor and walls of the foundation could be absolutely waterproof.

In order to dry out the soil and keep it dry, 180 well points were driven 30

to 40 ft deep and spaced 6 ft apart around the perimeter of the excavation, 1000 ft of 8-in. pipe connected them, and an 8-in. pump worked 24 hr a day to remove water at the rate of 500 gal per min. As shown in the photograph below, the well points were first sunk from different levels of the excavation as digging of the 400,000-sq ft foundation progressed.



When the digging was completed, a 4-ft-thick concrete pressure floor was poured over a waterproof membrane to form the sub-cellar. The operation required 900 cu yd of concrete to be poured over a 79- by 105-ft area in approximately 9 hr. To accomplish this feat, two 40-ft-long concrete belt conveyors delivered the concrete automatically to the correct spot for pouring. The unusual thickness of the floor was necessary to ensure a watertight foundation over the enormous water pressure that would be built up.

Pumping continued until it was ascertained that the weight of the foundation and superstructure was heavier than the weight of the water displaced, so that the foundation would not float up out of the ground. When this safety point was reached, the pumping was stopped and the well points removed.

Architects of the building are James, Meadows and Howard of Buffalo and Eggers and Higgins of New York. General Contractor is William L. Crow Construction Co. of New York.

Fire and Accident Control. An *Index and Directory of Fire and Accident Control Codes, Standards, and References* has been developed, after eight years of assembling, research and compiling, to provide a means of locating any information desired on accident prevention, fire control and health and sanitation contained in nationally recognized codes and standards and reliable references. A supplement will be issued each month to keep the Directory up to date. It is published by Loss Control Associates, 629 Oakmont Drive, Plattsmouth, Neb.

(Continued on page 226)



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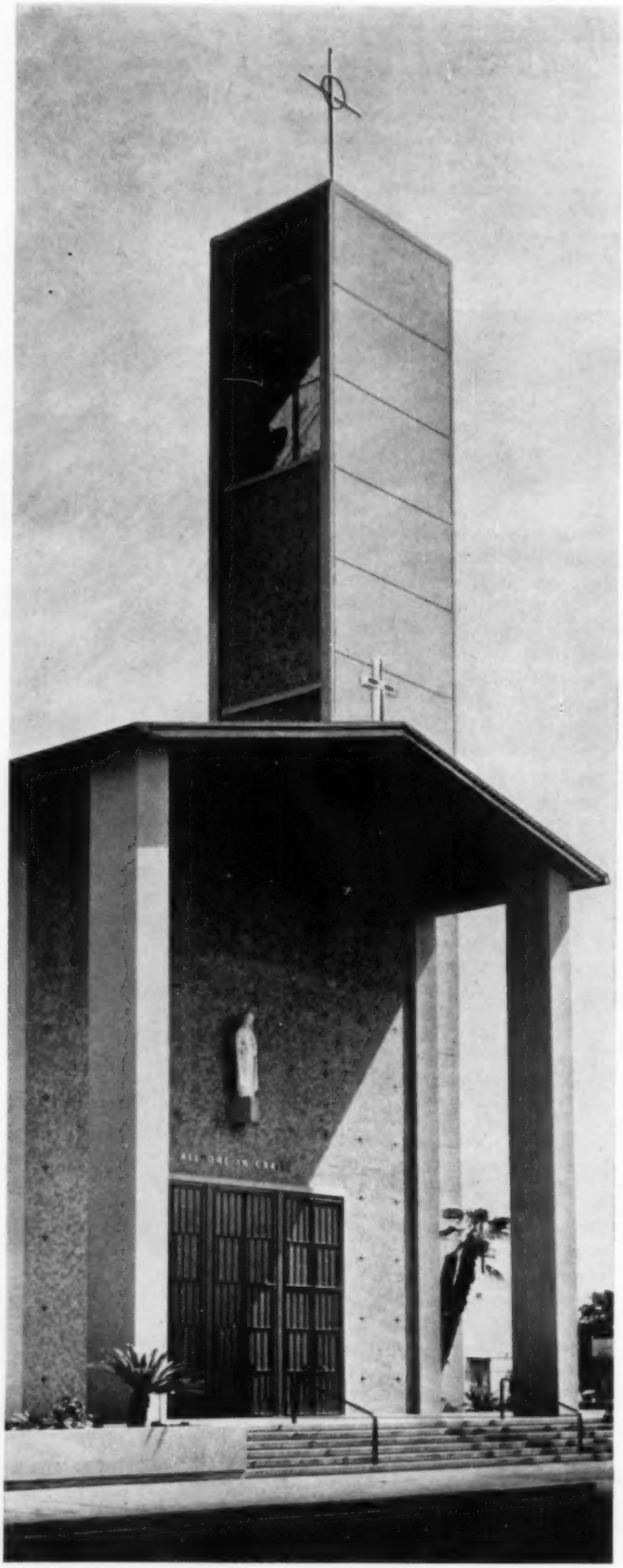
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St. Brigids Church, winner of Award of Merit, A.I.A. 1955 Nat'l Convention. Architect, Choix and Johnson, A.I.A., Los Angeles, Calif. Painting Contractor—J. P. Carroll, Los Angeles, Calif.

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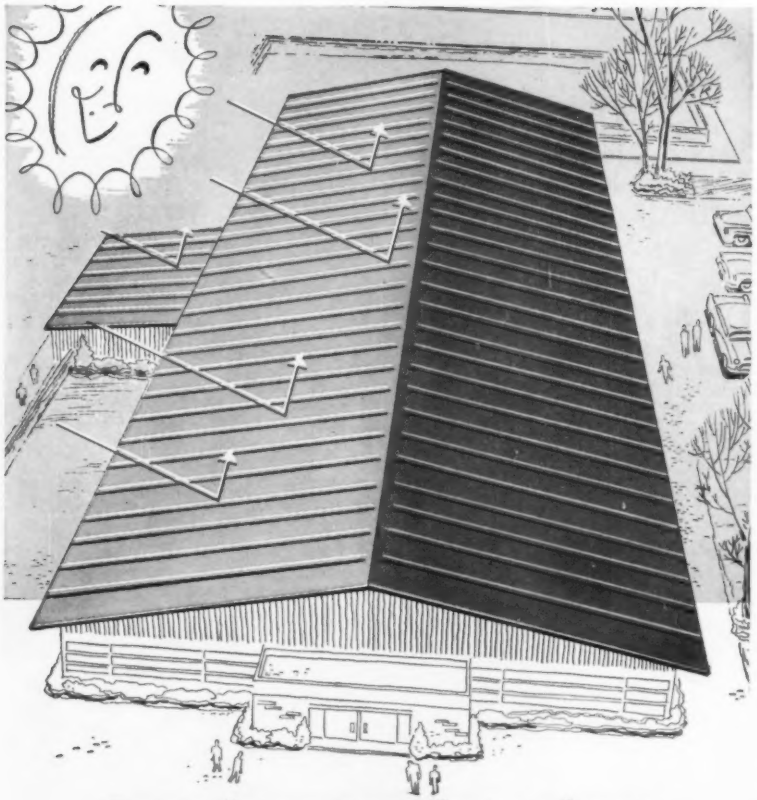
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AE ROUNDUP

(Continued from page 223)

Flush Sprinkler Installation is almost completely hidden in the ceiling in the new Lit Brothers Department Store in Camden, N. J. Designed by architects Thalheimer and Weitz, Philadelphia, the store contains about 1800 sprinkler heads fitted flush with the ceiling so that pipes and other parts of the system are completely concealed.

Adequate Wiring. Results of its 2-year-old campaign to promote adequate electrical wiring in the New York City area were reviewed, and future adequate wiring goals were outlined, by Consolidated Edison Company in a "Report to the Industry on Adequate Wiring." According to officials of Con Edison, the public's demand for electricity, which "was being choked off by wiring systems designed for the horse and buggy age" back in December 1953, when the program was started, has been met to a much greater degree today with new apartment houses having three-wire service and 100-amp load centers. It remains now, they concluded, for continued adequate wiring of new buildings for the increasing electrical load and also rewiring of existing buildings to take the load.

Audio-Visual Centers in Colleges and Universities is Brochure No. 4 in the series, "Planning Schools for Use of Audio-Visual Materials." This 140-page brochure is available at a cost of $1.50 per copy from the Department of Audio-Visual Instruction, National Education Association, 1201 16th St., N.W., Washington 6, D. C.

Concrete Materials is Vol. I of "The Technology of Cement and Concrete" and provides known facts about materials used in making concretes and their concrete-making qualities. The 422-page book, authored by Robert F. Blanks and Henry L. Kennedy, is available at $11.00 from John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y.

Correction. In the October 1955 issue of Architectural Record, on page 247, the figures given in the last column for parking capacity of the "Rotogarage" should appear as follows: "Each of the eight floors has slots for 31 cars (32 when there is no internal stairway), making an overall capacity of 248, plus 22 additional spaces on the reservoir floor."

Years Ahead

in Engineering and Design . . .
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Product of Holophane Engineering Research, No. 415 is presented as an altogether different lighting unit. Its efficiency, dependability and design are the result of long experience in developing prismatically-controlled lighting equipment for almost six decades.

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Asymmetric distribution spreads more light over the widest area . . . providing consistently high levels of illumination under all conditions . . .

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Die-cast aluminum hood and double thick prismatic refractor assure full protection against the elements. Easy to install, easy to maintain—it's trouble-free!

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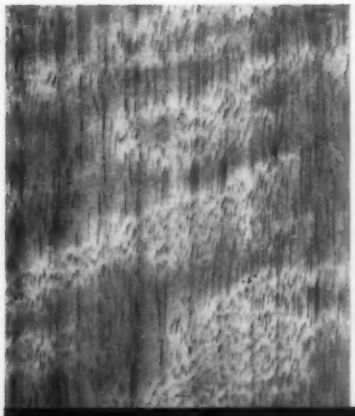
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This laughing Buddha rests on a teakwood base 13 centuries old.

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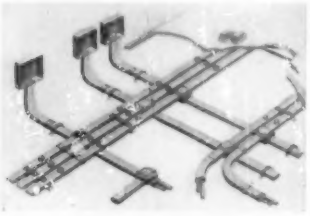
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AE PRODUCTS

(Continued from page 207)

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Two-level Steel Underfloor Wiring System designed for commercial, industrial and institutional buildings consists of two levels of steel ducts with necessary fittings and is engineered to feed and distribute power, telephone, signal and auxiliary systems. The lower level is used to feed conductors from panel boxes to the upper level, which in turn distributes conductors to the surface outlets. This is said to be the only steel underfloor system that provides for complete separation of high- and low-tension services, because only single-duct junction boxes are used throughout. *General Electric Co., Construction Materials Div., Bridgeport 2, Conn.*

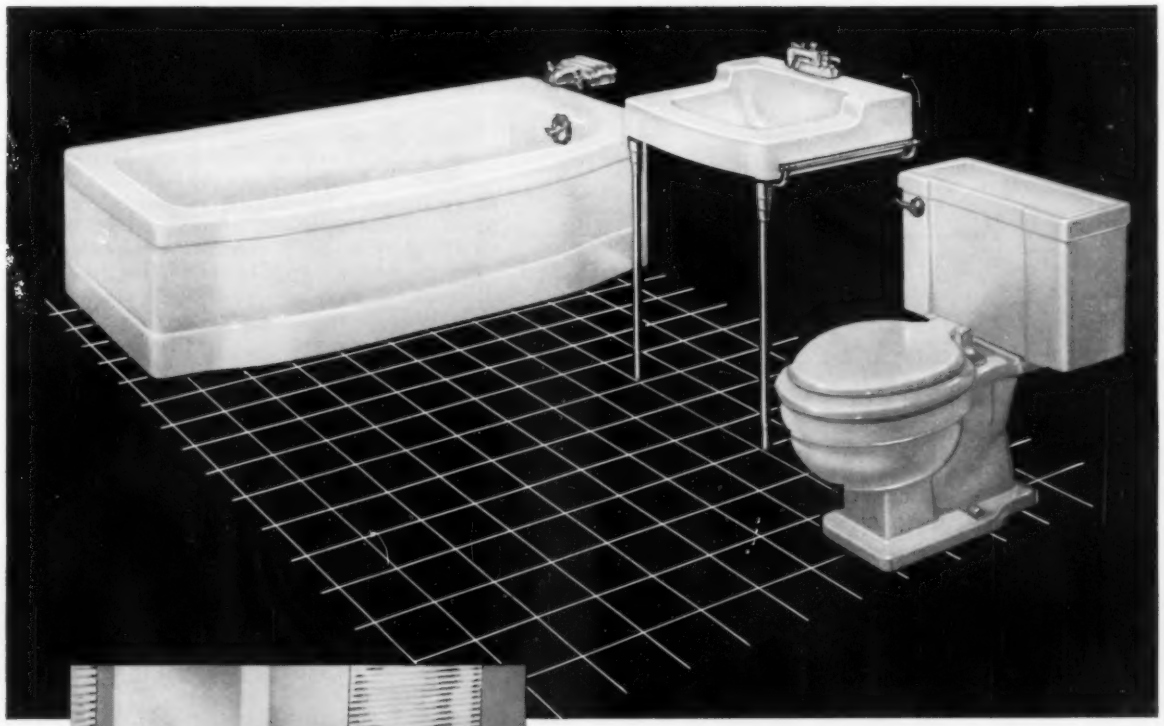


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(Continued on page 234)

COLOR IS THE KEYNOTE

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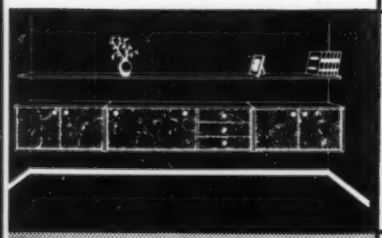
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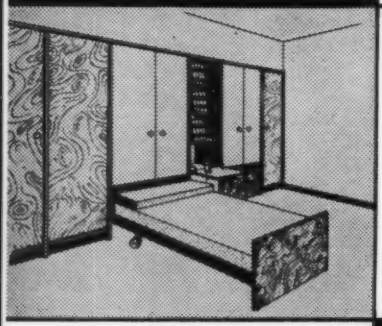
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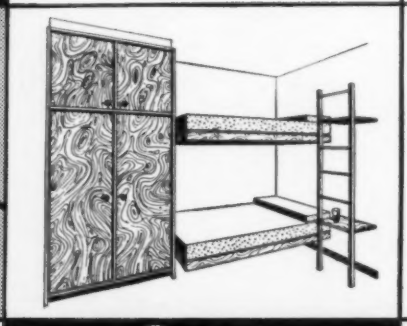
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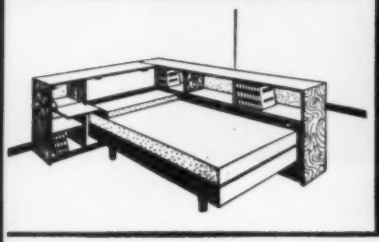


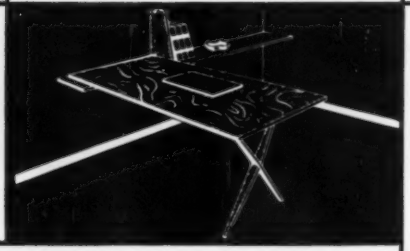












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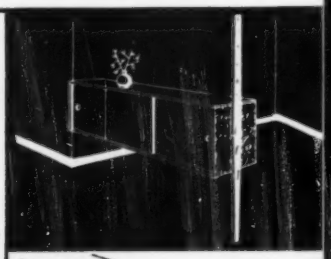
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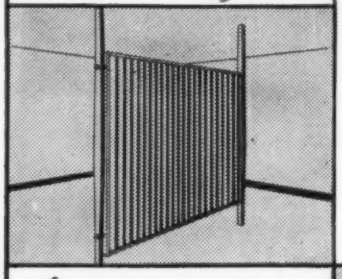
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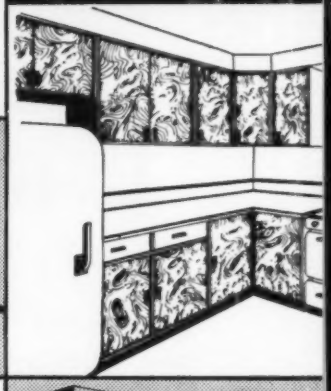
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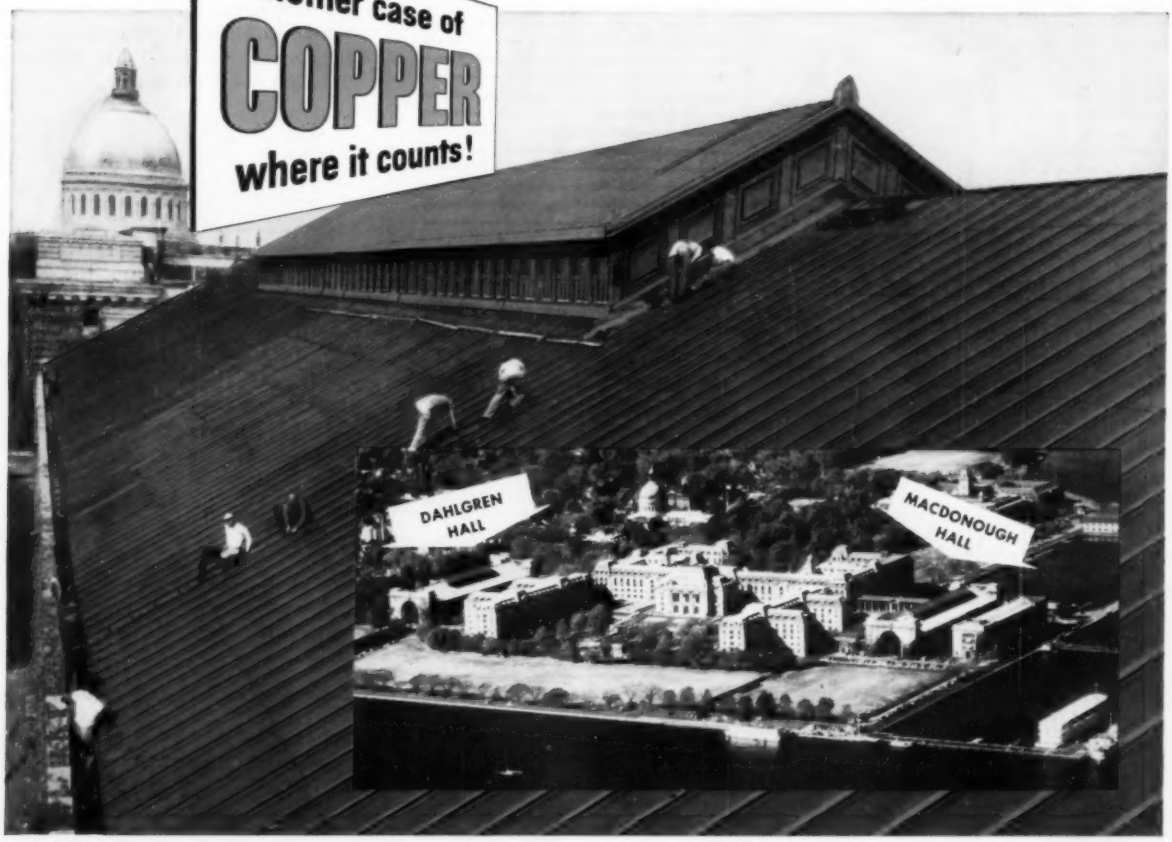
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For more than half a century copper has been giving satisfactory service on many buildings at the historic United States Naval Academy, including the famous dome of the Chapel. In addition to the roofs proper, copper has served faithfully as flashing, gutters, downspouts, leaders and skylights. Early last year Macdonough and Dahlgren Halls were renovated and improved.

Gichner, Inc., sheet metal and roofing contractor of Washington, D. C., who has worked on monumental buildings here and abroad for the past 60 years, used Revere Sheet Copper for the batten seam roofs and skylights of Macdonough and Dahlgren Halls.

Again and again you'll find in buildings built to last, it's copper without question. Why? The enduring properties of copper have been proved for centuries. It can't rust, rot or deteriorate. It ages gracefully, developing over the years a patina that is both decorative and protective which adds a distinguishing note that remains in keeping with the architectural design . . . be it traditional or modern. Its design possibilities are unlimited. It is readily worked into any desired shape; takes solder to perfection. In fact there is not another metal or alloy that has all of the desirable construction characteristics of copper. But regardless of how good copper is, proper installation is all-important.

For modern, trouble-free installation techniques consult Revere's "Copper and Common Sense," the 110-page brochure that has become the "bible" of the sheet metal industry. It is based on more than a century and a half of experience with sheet copper. If you do not have a copy send for it today. And if you have any technical problems confronting you involving the best way to use Revere Copper, let us know and we'll put you in touch with Revere's Technical Advisory Service. No obligations.

REVERE

COPPER AND BRASS INCORPORATED

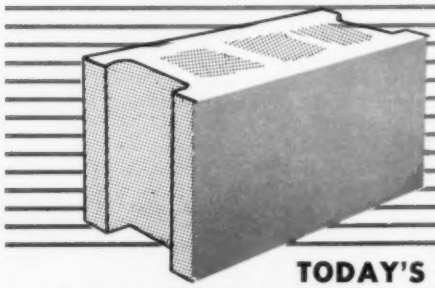
Founded by Paul Revere in 1801
230 Park Avenue, New York 17, N. Y.

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Mills: Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.
Sales Offices in Principal Cities, Distributors Everywhere.

BEST NEWS IN DECADES FOR THE BUILDING INDUSTRY . . .

COLOR-N-GLAZE BLOCK



TODAY'S ARCHITECTS CANNOT AFFORD TO LEAVE COLOR-N-GLAZE BLOCK OUT OF SPECIFICATIONS.

Only COLOR-N-GLAZE combines the advantages of standard concrete block with previously impossible economies due to elimination of painting or other decoration, faster wall completion, and negligible maintenance.

COLOR-N-GLAZE is available now . . .

as a structural concrete wall unit, in all concrete block stretcher and shape sizes

as a smooth, permanently colored, and glazed wall unit, in a choice of eight colors

at the lowest installed price in the history of building materials—usually well under 85¢ per square foot!

COLOR-N-GLAZE Block is waterproof and weatherproof, adapting it to outside use as well as the most exacting interior uses. You can design a complete load-bearing wall with permanently glazed color inside and out with COLOR-N-GLAZE Block.

ASK YOUR LOCAL BLOCK MANUFACTURER— OR USE THE HANDY COUPON BELOW

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Please send information on **COLOR-N-GLAZE** Block.

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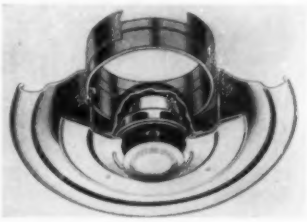
Address.....

City.....Zone.....State.....

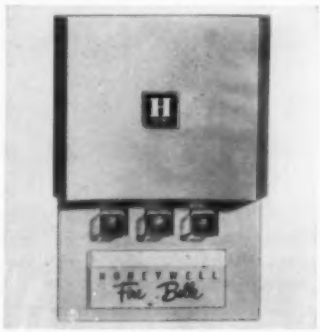
AEH PRODUCTS

(Continued from page 230)

Closed Circuit Television for banks enables a bank to centralize all its records and still gives a teller direct contact with signature control and bookkeeping departments. The *Monitrol Teller-Vue*, a 30- by 20-in. unit containing TV receiver, currency tray, two-way loudspeaker and alarm system, also provides burglary protection. *Mosler Safe Co., 320 Fifth Ave., New York 1.*



Air Diffuser-Speaker. One ceiling opening suffices for both air delivery and public address or piped music in a new air diffuser designed to accommodate an 8-in. high-fidelity speaker. Mounting the speaker within the air diffuser does not affect the capacity or performance of the diffuser, nor does the air discharge distort the sound quality of the speaker. The combination unit is available in three neck sizes: 14, 16 and 18 in., with or without damper. *Connor Engineering Corp., Danbury, Conn.*



Home Fire Alarm System links button-like tem perature-detecting elements to a master control panel, shown above. The square lights indicate which of three zones in a house is in trouble. Each zone may have as many as 10 detecting elements, networking the house, including attic, garage and storage areas. When an unsafe condition develops, the detector picks it up, signals the alarm panel, which trips off the alarm and flashes a light pinpointing the area of trouble. *Minneapolis-Honeywell Regulator Co., Minneapolis 8, Minn.*

(Continued on page 238)

NEW

high in style . . .
low in cost

BRUCE *Fireside* PLANK FLOOR



Bruce Fireside Plank Floor gives homes extra floor appeal at no extra cost. Mail coupon for free literature.

Featuring the exciting new Midnight Finish

Here's America's newest, smartest hardwood floor . . . praised by architects and builders and selected for several nationally-publicized homes. This low-cost Bruce Fireside Plank has all the well-known advantages of solid oak plus these distinctive features:

Stylish dark finish, alternate widths

The dark, mellow finish is smart, different. It's factory-applied for long life and easy care. Alternating 2¼″ and 3¼″ strips with wide, shallow side bevels give Bruce Fireside Plank the charm of an expensive random-width floor and an interesting pattern effect.

Low installed cost

Because it's completely finished at the factory, Bruce Fireside Plank costs no more installed than a comparable grade of plain strip flooring. There are no on-the-job sanding and finishing costs, and builders save from three to five days' working time per house.

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1690 Thomas St., Memphis 1, Tenn.

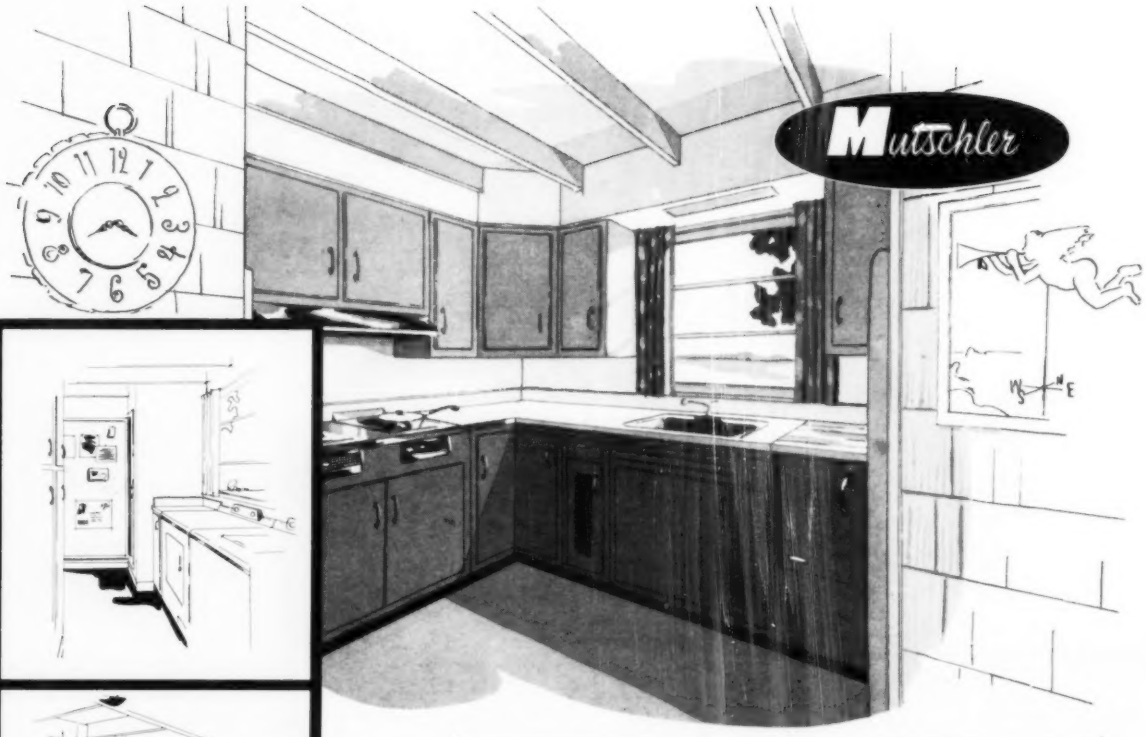
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BRUCE

E. L. BRUCE CO., Memphis 1, Tenn.
world's largest maker of hardwood floors

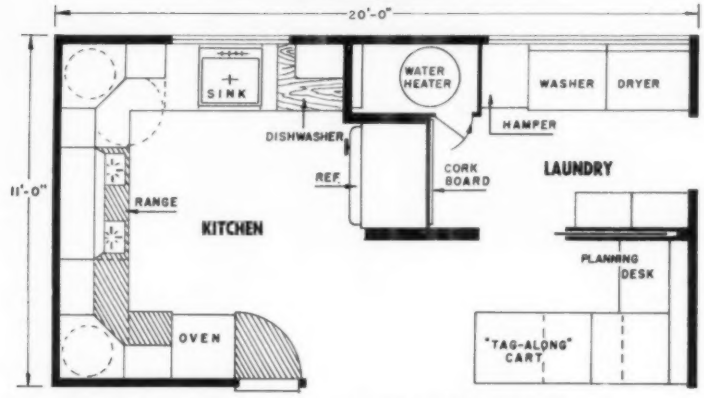




CONSULT SWEET'S ARCHITECTURAL FILE

for specifications of Mutschler's complete line of maple cabinetwork for kitchens . . . 23b/Mut.

If you are planning a school, also see Sweet's Architectural File, 22d/Mu, for homemaking, arts and crafts, and general storage cabinetwork.



THIS KITCHEN was planned in cooperation with Better Living magazine. A full color reprint is available from your Mutschler representative, if you'd like to see how it looked when completed.

Mutschler helps relieve kitchen planning "headaches"

Here's one example of how kitchen and allied functions can be planned into economical space. Several innovations are employed: built-in regular type refrigerator, built-in clothes hamper, tag-along cabinet section which doubles as service cart or can be rolled wherever needed for extra counter space. Also, the shingle decor treatment.

In addition, there are other fine kitchen features. Like built-in range and oven, towel drying cabinet, revolving corner cabinets, Midway units, color-matched dishwasher front, and so on.

All of this is an old story to us . . . more than 60 years old, as a matter of fact. But, it's ever new, too. Developments in the kitchen have come so rapidly during the past ten years, it's no wonder that it takes a specialist to keep up with them. Or that top-drawer architects look to Mutschler for relief from some of the "headaches" of planning today's kitchens.

These services of a Mutschler specialist cost you and your client nothing extra. Write or wire collect for the name of your nearest representative.

MUTSCHLER BROTHERS COMPANY
Dept. 1116, Nappanee, Indiana



Panels of extruded white translucent "Lucite" acrylic resin form the background for this display. With paper art work mounted behind them, the panels permit varied lighting effects, giving greater realism to articles being displayed. (Panels of "Lucite" extruded by Gering Products Company, Kenilworth, New Jersey.)

Here's drama in LIGHT,
thanks to panels of Du Pont LUCITE®

Exhibits of all kinds have an accented third-dimensional effect and life-like appearance against illuminated backgrounds of extruded translucent "Lucite" acrylic resin. Color, depth and lighting are combined to give your display a drama and appeal impossible with ordinary opaque backgrounds.

"Lucite" is an ideal material for creating dramatic lighting effects. Clear "Lucite" transmits over 92% of visible light . . . carries light around curves with radii over three times the thickness of the material.

Extruded "Lucite" saves you at least 67% in weight when used in place of glass, and its engineered compositions are designed to yield optimum light transmission at maximum diffusion. "Lucite" is easy to work with and offers you unlimited opportunities for new types of display and lighting applications in buildings of all types. For information about this versatile engineering material, write to E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Dept., Room 531, Du Pont Building, Wilmington, Delaware.

Quality Controlled

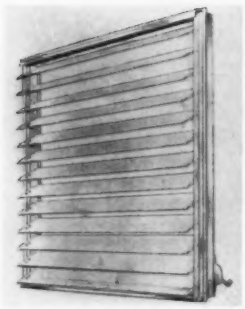
This "Quality Controlled" label is awarded to qualified extruders of Du Pont "Lucite" acrylic resin. It is Du Pont's assurance to the lighting industry that the extruded material meets the high standard of quality established by E. I. du Pont de Nemours & Co. (Inc.)

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

(Continued from page 234)

Cold-weather Jalousie Windows and Doors. *Finesse* jalousies are said to eliminate cold air infiltration because of specially engineered extrusion angles, fitted with vinyl and stainless steel weatherstripping which is pressurized into an air-tight fit. To protect even more against cold weather, storm window panes can be inserted on the inside in place of the summer screen inserts. The framework is of heavy aluminum. Louvers are center-pivoting. *State Jalousie Corp., 131 Shonard St., Syracuse, N. Y.*



Right off the street...

NO SLIPPING HAZARD

Even in Wet Weather!



IN all kinds of weather, people coming in from the street meet no slipping hazard on this terrazzo floor containing ALUNDUM Aggregate. It is non-slip wet or dry . . . attractive, and will show no sign of wear for years and years.

Norton ALUNDUM Aggregate installed in terrazzo in the proper proportion makes the ideal walking surface — especially for entrances, hallways, stairs, ramps and countless other places where there is heavy foot traffic and a potential slipping hazard. Norton ALUNDUM (C. F.) Aggregate gives the same advantages to cement floors, stairways and ramps.

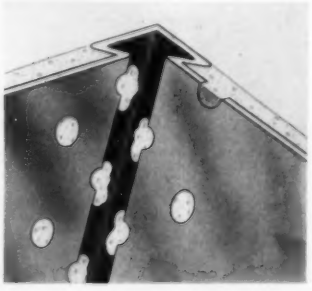
Our latest catalog No. 1935R will give you complete information, or it is always as near to you as your Sweet's File.

★ NORTON COMPANY ★
WORCESTER 6, MASSACHUSETTS

Coil-Wal Partitions for gymnasiums, auditoriums, balconies, wardrobes multi-use stages, etc., open and close automatically by switch control. They are made of slats of selected vertical grain woods joined together by prestressed steel cables. The wood is milled to accept any finish. The walls coil on top and bottom tracks into storage spaces which can be recessed or on the wall. The narrow slats of *Coil-Wal* prevent reverberations and absorb a high degree of sound. The walls are made for openings from 8 to 24 ft high and up to 110 ft wide. *Dubuque Products, Inc., Dubuque, Iowe.*



Plastic Folding Doors, stain-resistant and easy to keep clean, fold back to a stack of 1 in. for every 12 in. of door width. They are available in widths of 2, 2⅔, 3, 4 and 5 ft at a height of 6 ft 8½ in. Colors available are gray, ivory, beige, pink and green. Doors operate on matching-color nylon clip guides. *Curtition Corp., 2227 Sawtelle Blvd., Los Angeles 64, Calif.*



Corner Guard for Drywall. An all-steel corner guard for drywall construction has a wider nose to space spackle further away from the corner. The nose is tapered also to the contour of the feathered-out spackle. The holes under the nose permit the spackle to rivet itself into the nose with a positive key. *Drywall Trim, Inc., 2408 No. Farwell Ave., Milwaukee 11, Wis.*

(Continued on page 242)

Want control for Water Heaters or Heat Exchangers?

call POWERS

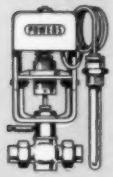
FLOWRITE
One of Powers Premium Quality Diaphragm Control Valves. They're simple, sturdy and dependable.



Over 60 Years of Temperature and Humidity Control

(c23a)

You Will Insure Better Temperature Control IF— you use the right type regulator and proper size control valve. Whether a simple self-operating regulator shown at left is required or the air operated controls featured here . . . you can get both types and others from Powers. For further information call or write our nearest office.



Powers ACCRITEM Temperature Regulator and FLOWRITE Valve—the right combination for many control problems where pressure and load conditions fluctuate widely, also for control of large size valves.

Over 50 Years Experience making this type of regulator

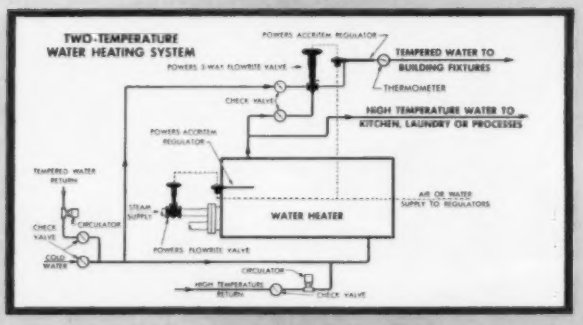


Control Point easily changed

Air or water operated

Ranges 50 to 250°F—150 to 350°F

VALVES: Available in a variety of body types and inner valves.

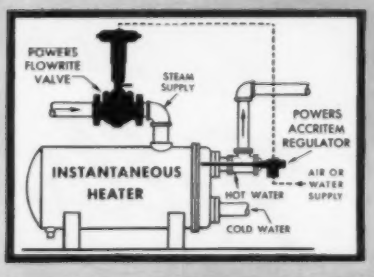


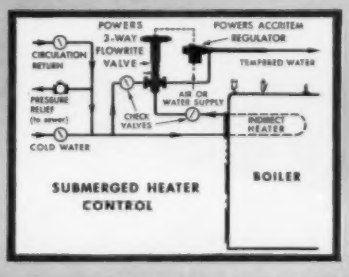
ACCRITEM TEMPERATURE REGULATOR

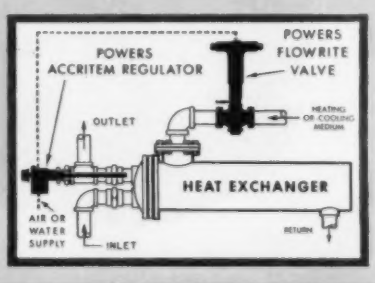
Gives Close Control and Years of Dependable Service.

- Has Adjustable Throttling Range and Calibrated Dial.
- Simple, Durable Construction assures years of trouble-free service.
- Easy to Install • Direct or Reverse Acting, reversible on the job.
- Small Size: Regulator head is 2⅞" wide, 3⅛" high, bulb is 12" long with ½" IPS Connection.

Fully Described in Bulletin 316. Write for a copy.







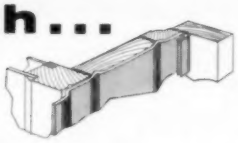
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WOOD CASEMENT WINDOWS

the charm...from wood
the strength...
from steel



PELLA WOOD CASEMENT WINDOWS combine the charm and insulating qualities of wood with the strength of steel. For a 16-gauge steel frame reinforces the sturdy wood lining to provide maximum rigidity. This steel frame extends the full width of the jamb and is continuous around all four sides of the window. The hinge butt plate is anchored to the solid steel frame. That's why PELLA CASEMENTS always hang true and can be furnished with glass sizes up to 24″ x 60″—the largest wood casement sash on the market.

The wide range of PELLA stock sizes in modular widths, used singly or in combination, makes it possible to create perfect window arrangement for every design concept. Glass sizes are 16″, 20″ and 24″ in width and range up to 60″ in height. Furnished with both horizontal and vertical muntins, with horizontal muntins only, or without muntins.

PELLA CASEMENTS fit snugly in all types of wall construction. They are completely assembled with hardware fitted at the factory.

A quality window competitively priced. Investigate today. See our catalog in Sweet's or mail the coupon today for free literature. Distributors are located in major cities of U.S. and Canada.

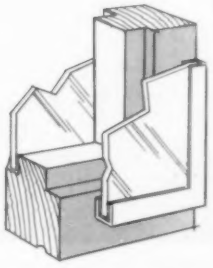
Pella®

WOOD CASEMENT WINDOWS



ROLSCREENS

All Pella Casements are equipped with inconspicuous Pella Rolscreens—that roll up and down like a window shade. Need no putting up, taking down, repairing or storage.



DUAL GLAZING

The year 'round Pella self-storing storm window protects against winter cold and summer heat. Reduces street noises up to 40%. Glass sets in a neat aluminum frame, vinyl-lined to keep out dust.

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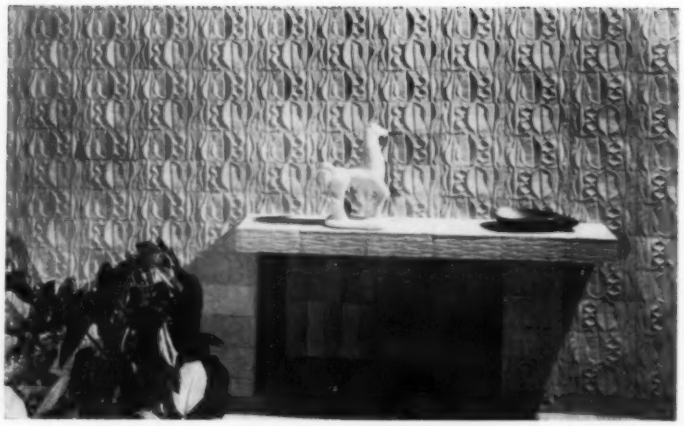
ADDRESS

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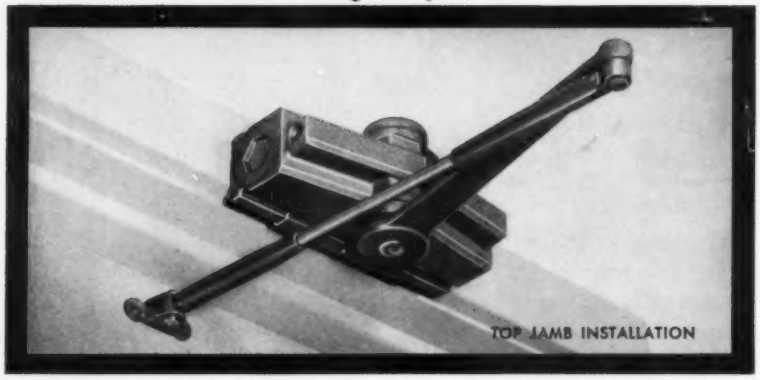
ATTENTION MR.

(Continued from page 238)

Sculptured Tiles in glazed and unglazed waterproof clays of natural earth tones are suitable for fireplaces, columns, complete walls or sections, planter boxes, patios, terraces and pools. The designers, Lee and Samuel Rosen, also produce sculptured tile murals, room dividers of tiles in fine wood panels, lamps, hand-woven draperies and accessories. The hieroglyphic, relief-like pattern shown at right is in the showrooms of *Design Technics, 4 East 52nd St., New York.*



New SCHLAGE Door Closer Eliminates Unsightly Brackets...



From SCHLAGE—leader in locks—comes the first architecturally styled door closer . . . Unique mechanical design permits the installation of Schlage closers on outswinging doors without soffit and corner brackets . . . Installed on the top jamb, closer is clear of the door opening insuring maximum headroom.

Completely Reversible Without Disassembly

Schlage's double-ended shaft permits arm attachment on top or bottom for operation on either side of door, regardless of swing. This feature means that, for the first time, a standard closer can offer the unique top jamb installation shown above.


CONVENTIONAL INSTALLATION

Easier to Adjust

Two simple screw adjustments provide any desired combination of swinging speed and closing power . . . in a matter of seconds.

Easier to Install

Use of separate mounting plates eliminates need for holding closer during installation. Result—far simpler installation; real economy of time and labor.

Full Rack and Pinion Mechanism

Complete control throughout the entire swing of the door is provided by a full rack and pinion mechanism. Teeth are pitched for greatest strength and are sufficient to permit 230° shaft rotation.

Write today for complete information on the new Schlage closer . . . ask for Booklet #680-A1

SCHLAGE® SCHLAGE LOCK COMPANY
San Francisco • New York • Vancouver, B.C.
Write to Schlage Lock Company, San Francisco

Winter Air Conditioners to augment its summer cooling line have been announced by *Shana.* "Shana-Heat" hi-boy and counterflow oil- or gas-fired winter air conditioners have stainless steel and refractory combustion chambers, aluminum foil-faced glass wool blanket insulation, baked enamel cabinet and built-in filter rack. They are designed to eliminate noise and vibrations and to remove dirt, dust and other impurities from the air. Automatic controls regulate the operation of the furnace. Ten other complete lines of factory-assembled winter air conditioners are also available from 50,000 to 235,000 Btu. *Shana Mfg., Inc., 188 West Randolph St., Chicago 1, Ill.*

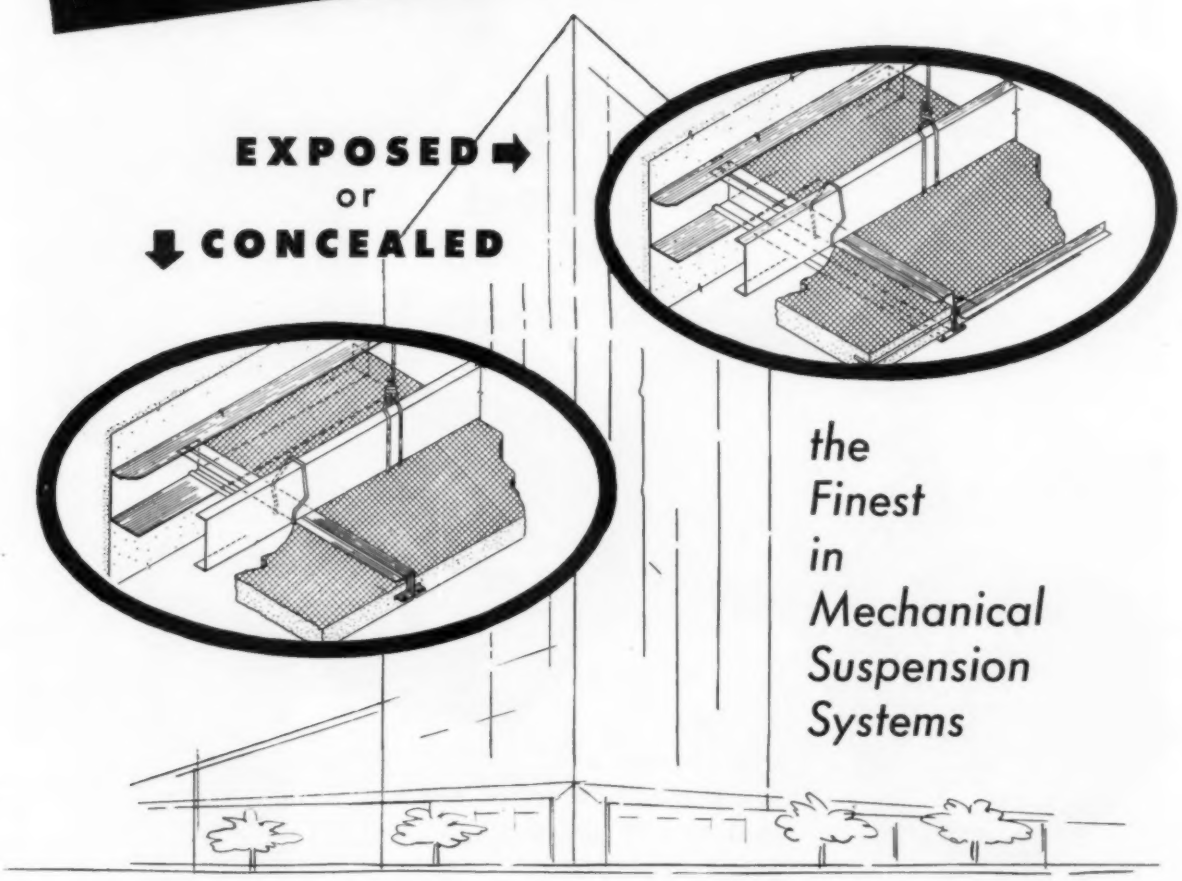


Lock Escutcheons into which background colors, materials and textures can be designed are being produced for entrance and interior doors. Two styles are available; the *Manhattan* and the *Continental.* The Continental, shown above, is circular and measures 11 in. high by 8 in. wide. *Schlage Lock Co., 2201 Bayshore Blvd., San Francisco, Calif.*

Rubber Wall Covering. The *Wall-Flex* rubber wall covering line has been enlarged to include six new colors in a special embossed finish: Shannon Green, Capri Blue, French Gray, Arabian Sand, Riviera Turquoise and Hawaiian Coral. *The R.C.A. Rubber Co., Akron 5, Ohio.*

(Continued on page 246)

Securitee Line



the Finest in Mechanical Suspension Systems

Top quality materials, easy installation, long trouble-free service—that's the story of Securitee Line—exposed or concealed mechanical suspension systems.

Securitee Line Exposed System allows free access to piping or wiring above ceiling in case of need.

Securitee Line Concealed System affords a wide scope in application—ceiling can be installed close to joist or with large drop. Both add considerable effectiveness to sound absorption of the tile units.

Specify and insist on Securitee, mail coupon for complete information.

Securitee Line SYSTEMS

W. J. HAERTEL & CO. 832 W. Eastman St., Chicago 22, Illinois

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no other home equipment is used so much!



be sure
your homes use
the glass-lined water heater
that has 17 years of
proof behind it

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CORPORATION
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Like Easy Fishing?

GET NE Sherarduct

RIGID STEEL CONDUIT



Easy fishing . . . that's one reason contractors like Sherarduct rigid steel conduit. In addition to a smooth inside surface, Sherarduct's accurately cut threads let conduit ends butt inside the coupling . . . eliminate gaps that interfere with easy fishing.

Sherarduct has other plus features as well: The Sherardizing process of galvanizing that alloys zinc with the conduit wall, (plus a baked-on Sher-enamel coating) fortifies Sherarduct against rust and corrosion for life. All surfaces, including the hill and valley of every thread, are securely protected against corrosion.

Finally, the gradual heating and cooling of the Sherardizing process normalizes the metal in an annealing like process. Result: easier working, forming and bending on the job.

Write for a free copy of our new Sherarduct facts book. You'll see why the Sherardizing principle makes Sherarduct "galvanized conduit at its best."

Listed by Underwriters' Laboratories, Inc.

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EASY FISHING
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STRONG COUPLINGS
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EASY BENDING

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3 Plants • 10 Warehouses • 36 Sales Offices



Byrne Canopy Hangar Doors for 18 Air National Guard Hangars

Byrne Vertical Lift Canopy Doors meet every specification demanded by military standards for a door that is structurally sound, fast-acting, weather-tight, dependable, safe and economical in operation. In addition, they allow full use of all space in the enclosed floor area. In fact, by forming canopies they actually increase the effective working space.

These canopy doors can be made in sections for any width of opening and may be operated individually or simultaneously. They are motor operated, upward-acting with balanced suspension through cables which transmit dead loads to compact counterweights.



Hangar for the Alabama Air National Guard has a Byrne Vertical Lift Canopy Door 78′ wide by 32′7″ high. The canopy door is flanked on both sides by two sliding doors 13′ wide—which are used to admit planes larger than usual.

Byrne Doors, Inc., with over 25 years experience in the development and manufacture of doors for the aircraft industry, can meet any requirements for hangar doors. The complete line of Byrne hangar doors includes the Vertical Lift Canopy, the Type B Canopy for openings up to 120′ wide by 30′ high, the Type K Canopy for heights up to 55′ with single sections up to 150′ wide and the Motorized Slide Doors. For complete information on the Vertical Lift Canopy Doors or other types available, check Sweet's Catalog or write direct to Byrne Doors, Inc.

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Burlington, Vermont
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Montgomery, Alabama
Houston, Texas
Springfield, Ohio
Fort Smith, Arkansas
Romulus, Michigan
Niagara Falls, New York

BYRNE doors, inc.

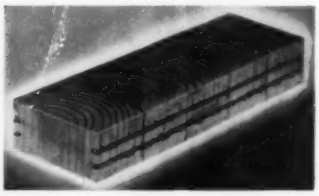
1603 E. 9 Mile Road, Ferndale, Detroit 20, Mich.

101 Park Ave., New York 17, N.Y.
Dept. r-13 Cafritz Bldg., Washington 6, D.C.
Byrne Doors, Ltd., 41 Avenue Road, Toronto, Ont.

A/E PRODUCTS

(Continued from page 242)

Vinyl Plastic Paint. *Seal-Kote* is a one-coat vinyl plastic all-purpose paint suitable for both interior and exterior applications. It can be used on cement and cinder blocks, concrete, brick, wood, plaster, wallboard, celotex, stucco, all kinds of masonry and wallpaper. When used on damp masonry, it is said to prevent further water penetration. It is claimed to be washable, non-fading, resistant to mild industrial acids, alkalies, grease, oil, fats and dirt and does not blister, chalk, crack, chip or peel. It is available in 8 colors, clear and white. *The Wooster Sealkote Co., Wooster, Ohio.*



Gymnasium Flooring. A wood block flooring material designed specifically for school gymnasiums, vocational shops and laboratories is called *Flexible Strip End Grain, Wood Block Flooring.* This *Kreolite* product is made from 1½- or 2-in.-thick kiln-dried pine blocks, wire-trussed together to form compact, monolithic-like end-grain planks or strips. These strips are then impregnated with a special preservative to guard them against the ravages of time. When the flooring is laid, each strip is interlocked to adjoining strips by a patented steel wire spline to provide a smooth, splinter-free, resilient floor. *Jennison Wright Corp., Toledo, Ohio.*



E-Z Fold Basketball Backstops are raised and lowered by electric winch. As shown in the photograph above, the goals fold up against the ceiling when a gymnasium is to be used as an auditorium. Folding time ranges from 2 min to 30 sec, depending on ceiling height. A remote-control switch operates the goals. *E-Z Fold, Inc., Spearville, Kan.*

(Continued on page 250)

Looking for Architectural Consultant Service on Floor Treatments?

HILLYARD CHEMICAL CO.
Architectural Dept.
St. Joseph, Mo.

see our catalog in ARCHITECTURAL FILE

Please have the Hillyard "Maintaineer*" give me a complete set of A.I.A. numbered files on the proper Hillyard treatments recommended for every type floor.

Name.....Title.....

Firm Name.....

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City.....State.....

* A trained floor treatment Architectural consultant

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A Specialized Hillyard SERVICE FOR ARCHITECTS

includes assistance in three important phases of your total responsibility. Careful consideration of these three steps in Hillyard service can assure floor beauty and utility that will commend complete client satisfaction.





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RECOMMENDATION OF SPECIALIZED PRODUCTS. Every Hillyard product is made because of a particular need. Whether it's treating a new concrete floor to permit proper curing or sealing asphalt tile to develop a more beautiful slip-resistant finish, the Hillyard "Maintaineer" has the answer to any floor problem.

2

PROPER APPLICATION METHODS are thoroughly explained and illustrated in material that is made available to your contractors.



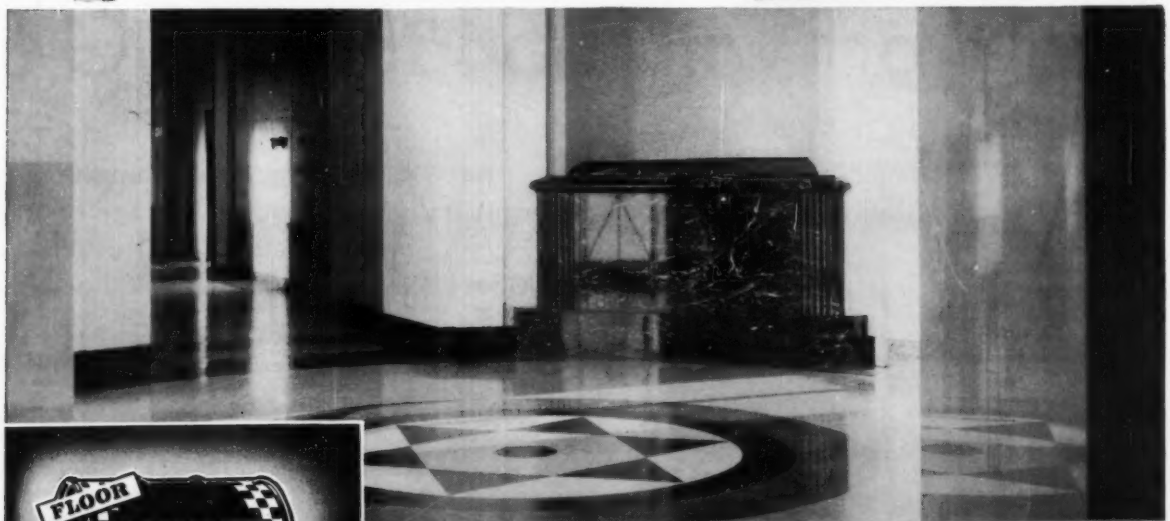
3

"JOB CAPTAIN" SUPERVISION is provided FREE on any job you specify. To be sure these application methods are fully understood and used according to specifications, a staff of trained experts located throughout all 48 states is available to you at all times.



FREE RECOMMENDATION SURVEY of any job on your boards now. There's a Hillyard floor treatment expert near you. Just send the coupon above or write to Hillyard, St. Joseph, Mo.

AL JOLSON MEMORIAL Architect: Paul R. Williams, Los Angeles



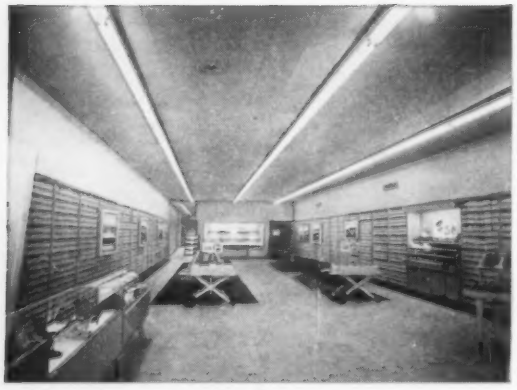
FLOOR HILLYARD TREATMENTS

ST. JOSEPH, MO. PASSAIC, N. J. SAN JOSE, CALIF. Branches in Principal Cities



Bay Shore Shopping Center, Milwaukee, Wisconsin. Owned by Bay Shore Center, Inc.; Architect—M. O. Nathan; Builder—Sheldon-Thomas, Inc.; G-E

Wisconsin shopping center comfort with 664 tons of G-E



Larger Bay Shore stores utilize up to four G-E units. Smaller stores require only a single G-E unit of 3 to 15-ton capacity. Offices are serviced by units grouped in central machinery rooms.

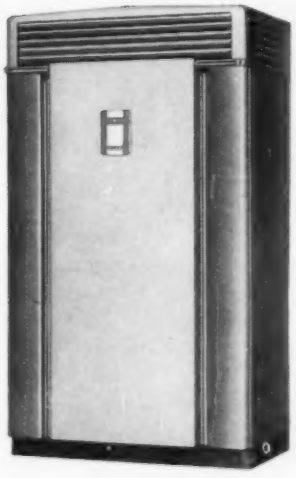
81 G-E Packaged Air Conditioners permit individual indoor weather control in 47 stores, 60 offices of Bay Shore Shopping Center in Milwaukee

Every office and store of mammoth (315,000 square feet) Bay Shore Shopping Center, largest in Wisconsin, developed by C. M. Redman, is "comfort serviced" by 81 G-E Packaged Air Conditioners. All units, totalling 664 tons, are located out-of-space — not a single square foot of sales or office space is lost.

Installations were made on a highly flexible, individual basis as the center grew and as leases were signed. Working closely with the architect, the G-E contractor coordinated air conditioning with building design and layout — meeting (1) changes in plans with minimum inconvenience and delay;



packaged units installed by Conditioned Air Equipment Co., Minneapolis, Minn.



gets year-round Air Conditioning

(2) the special needs of each lessee at minimum cost to Bay Shore management.

Throughout hot weather, each store and office controls its own indoor temperature and humidity. Ductwork and grilles are used both summer and winter. For winter heat, some units have heating coils. Write for data to General Electric Company, Commercial & Industrial Air Conditioning Department, 5 Lawrence St., Bloomfield, New Jersey.

Packaged AIR CONDITIONERS

Progress Is Our Most Important Product

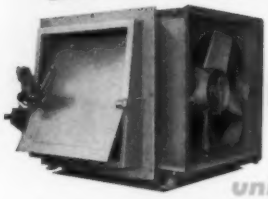
GENERAL ELECTRIC

CHECK THESE ADVANTAGES OF USING G-E PACKAGED AIR CONDITIONERS

- Low installation, low operating costs.
- Complete line of vertical floor-mounted and horizontal ceiling-fastened units gives the architect maximum design freedom. Units can be used in space or concealed, with or without ducts. Horizontal units are both air cooled and water cooled.
- 3, 5, 7½, 10 and 15-ton units can be used singly or in multiple to meet air conditioning needs of any building.
- Easily directed air flow for no-draft no-waste air circulation.
- Built and factory assembled by General Electric. 5-year warranty covers entire sealed cooling system.

NO UNSIGHTLY CHIMNEY ALLOWED (OR NEEDED) IN MODERN MOTEL DESIGN



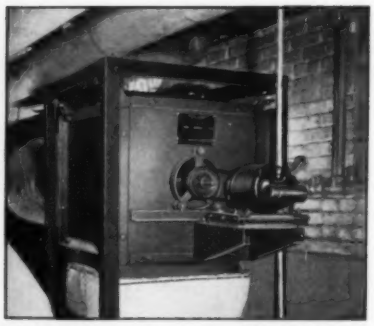


Wing DRAFT INDUCERS

. . . supply positive, adequate, uniform, motorized draft at all times

The ever-increasing number of these deluxe roadside hostelries, complete with all modern conveniences, many with swimming pools, nurseries, restaurants, etc., indicates the success of this growing business in meeting a public demand.

In planning new establishments or enlarging the facilities the low streamlined, attractive design characteristic of the motel makes a tall unsightly chimney out of the question. And unnecessary, too, for WING motorized Draft Inducers provide positive, uniform, adequate draft for boilers and furnaces, independent of weather conditions. Easily installed, and in addition to their other advantages, pay for themselves in higher fuel-burning efficiencies. Most always they cost less than a tall stack.



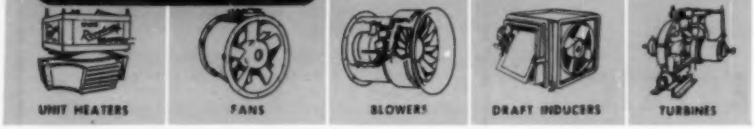
Write at once for comprehensive bulletin No. I-56. No obligation.

L. J. Wing Mfg. Co. 151 Vreeland Mills Road, Linden, N. J.

Factories: Linden, N.J. and Montreal, Can.

L. J. Wing Mfg. Co., Linden, New Jersey AR-1
Please send me Bulletin I-56—Draft Inducers
Name.....
Firm.....
Address.....
City.....Zone.....State.....

Wing

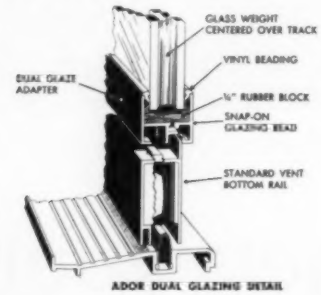


A-E PRODUCTS

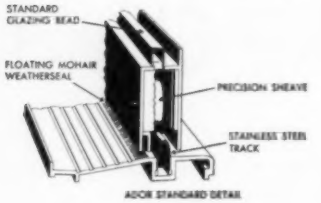
(Continued from page 246)



Light-controlling Window. A new kind of window which is a one-piece louvered panel of molded *Plexiglas* combines a clear transparent surface with an opaque surface. *Lura-Lile* louvered panels provide adequate light without glare and excessive heat by permitting only the required amounts of the sun's rays to pass into a room, by reflecting some rays outside the building and by diffusing and scattering others for maximum non-glare lighting. *Luria-Cournand, Inc., Havre de Grace, Md.*



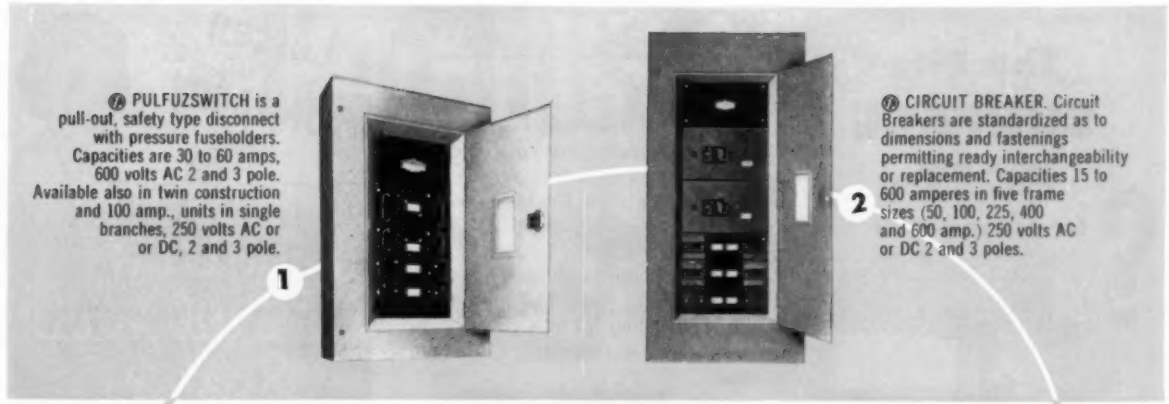
ADOR DUAL GLAZING DETAIL



ADOR STANDARD DETAIL

Adaptor for Dual Glazing makes it possible to install *Ador* sliding glass doors in climate areas where heretofore they have been considered impractical. As shown in the cutaway above, the adaptor fits on the standard vent bottom rail, and the dual pane is secured with a snap-on glazing bead. Vinyl beading assures positive air lock where the glass fits into the adaptor. The design of the adaptor blends with the standard bottom rail. The unit is engineered to keep the weight of the heavier glass centered over the track for smooth door action. *Ador Sales, Inc., 2345 W. Commonwealth Ave., Fullerton, Calif.*

(Continued on page 252)



Ⓕ PULFUZSWITCH is a pull-out, safety type disconnect with pressure fuseholders. Capacities are 30 to 60 amps, 600 volts AC 2 and 3 pole. Available also in twin construction and 100 amp., units in single branches, 250 volts AC or or DC, 2 and 3 pole.

1

2

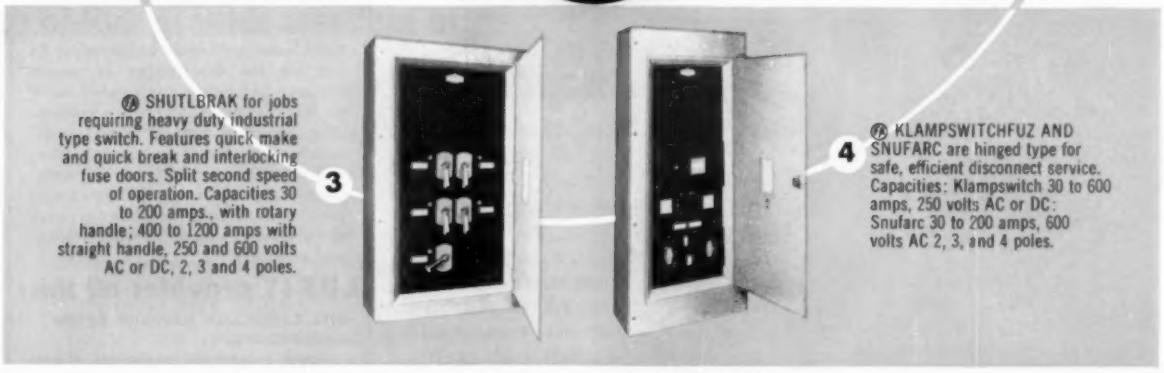
Ⓕ CIRCUIT BREAKER. Circuit Breakers are standardized as to dimensions and fastenings permitting ready interchangeability or replacement. Capacities 15 to 600 amperes in five frame sizes (50, 100, 225, 400 and 600 amp.) 250 volts AC or DC 2 and 3 poles.

for the finest in safety and efficiency

FA

feeder distribution

PANELBOARDS



Ⓕ SHUTLBRAK for jobs requiring heavy duty industrial type switch. Features quick make and quick break and interlocking fuse doors. Split second speed of operation. Capacities 30 to 200 amps., with rotary handle; 400 to 1200 amps with straight handle, 250 and 600 volts AC or DC, 2, 3 and 4 poles.

3

4

Ⓕ KLAMPSWITCHFUZ AND SNUFARC are hinged type for safe, efficient disconnect service. Capacities: Klampswitch 30 to 600 amps, 250 volts AC or DC: Snufarc 30 to 200 amps, 600 volts AC 2, 3, and 4 poles.

Choose any one of the four feeder distribution panelboards manufactured by Ⓕ and you can be sure of getting the finest in safety, operating efficiency and dependability.

Approved by the Underwriters' Laboratories, Inc., for label service, Ⓕ Feeder Panelboards have been carefully designed and engineered to give long-lasting and trouble free service.

Switch units of the Pulfuzswitch, Klampswitchfuz, Snufarc and Shutlbrak are all of the operating type, horsepower rated. Switch and pressure type fuseholders have been combined into one unit so that the current is "off" when fuses are accessible. Too, all current carrying contacts are heavily silver-plated. And for those who want extra safety and convenience the circuit breaker type with automatic circuit protection is unexcelled.

All feeder panels are built in standard boxes 19, 24, 30, and 42 inch widths. Boxes 19″ wide have standard knockouts top and bottom. Others have removable ends to permit drilling conduit openings on the job.

For the finest in safety and efficiency, insist on Ⓕ Feeder Panelboards. Your nearest Ⓕ representative, listed in Sweets, will be glad to give you more information.

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The Rite SURFACE BOLT–

for any style door



#343 – ⅜" x 2" to 6".
#344 – ½" x 4" to 24".
#345 – ⅜" x 6" to 48".
All popular finishes.

These solid brass surface bolts are designed to harmonize with any style architecture. They are strong and simple to install. A most modern development is the new-type guides that allow for oval head screws – they are counter-sunk flush for a smooth, "non-knuckle-skinning" surface. Efficient – simple – strong.

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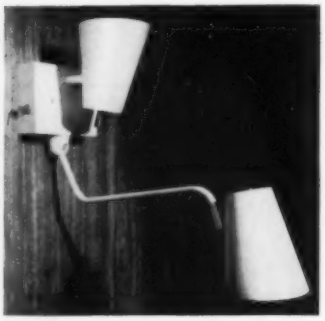
A E PRODUCTS

(Continued from page 250)

Gas-fired Horizontal Furnaces. A new line of *Luxaire* furnaces in four units will provide a complete range of the most popular sizes for home heating with capacities of 80,000, 100,000, 120,000 and 140,000 Btu input. The 100,000-Btu unit is 58 in. long, 21 in. high and 21 in. deep. The 140,000-Btu unit is 60 in. long, 24 in. high and 27 in. deep. *The C. A. Olsen Mfg. Co., Elyria, Ohio.*



Lighting Troffers. *Architectural Troffers* are adaptable to all types of ceilings and achieve the utmost in lighting appearance and efficiency, according to the manufacturer. There are no visible catches, latches, hinges, bolts or screws, and door frames and louvers are removable without tools or loose parts. The units are manufactured for use on a 12-in. module. *Smithcraft Lighting Div., Chelsea 50, Mass.*



Hospital Light can be used for reading, eating, examination or treatment, resting or sleeping. Dual-tension, heavy-duty swivels allow 360-deg rotation of shade and retain constant tension. Convenience outlet, dual adjustable arms or shorter lengths on adjustable arms are also available. An oyster color is standard, but gray, green and brown are also available. *Prescolite Mfg. Corp., 2229 Fourth Ave., Berkeley, Calif.*

(Continued on page 256)



"The LOXIT Chalkboard System is a Complete System"

● It provides the answers to all your chalkboard problems by bringing to you all the advantages of expert design, precision engineering and painstaking manufacture in a remarkably complete line of chalkboards, tackboards, bulletin boards, trim, and related items. The Loxit Chalkboard System is a complete package, tailored to fit your specific needs with the utmost in simplicity, effectiveness and economy.

LOXIT *provides all this:*

RITE GREEN AND DARKRITE GREEN CHALKBOARDS—
proven in successful installations all over the United States.

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to meet budget requirements with good quality as well as economy.

PETRALOX CHALKBOARDS—
a cement-asbestos chalkboard with the same fine writing surface of RITE GREEN.

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porcelain enamel on 16 gauge steel for a lifetime of satisfying use.

All Loxit Chalkboards can be washed as often as desired.

LOXIKORK TACKBOARDS—
a closely grained uniform surface that stays soft and spongy—nine colors.

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for both plastered-in and surface-applied installations.

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the companion trim to the thrifty KOMPO-CITE Chalkboards.

COMPLETELY TRIMMED—
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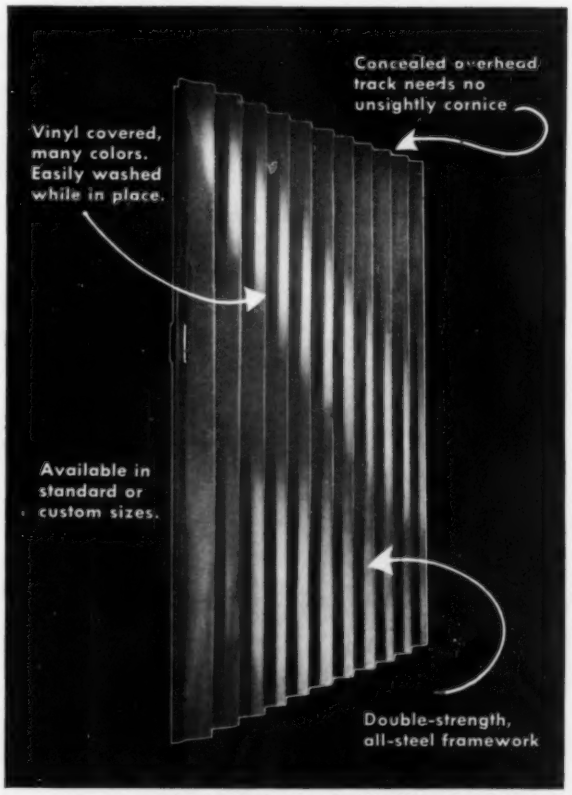
Can this free you of this ?

It has for the hundreds of architects who have used Modernfold Doors to obtain greater freedom of design

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These folding doors have been successfully employed in countless residential, commercial and institutional installations. Besides being efficient, highly flexible space dividers, MODERNFOLDS are styled to blend with a wide variety of settings.

Sturdy MODERNFOLDS are literally built to last the lifetime of the building, with far less maintenance than old-fashioned hinged doors. When your MODERNFOLD distributor shows you their many quality features, your imagination will be stimulated to find new applications for them.



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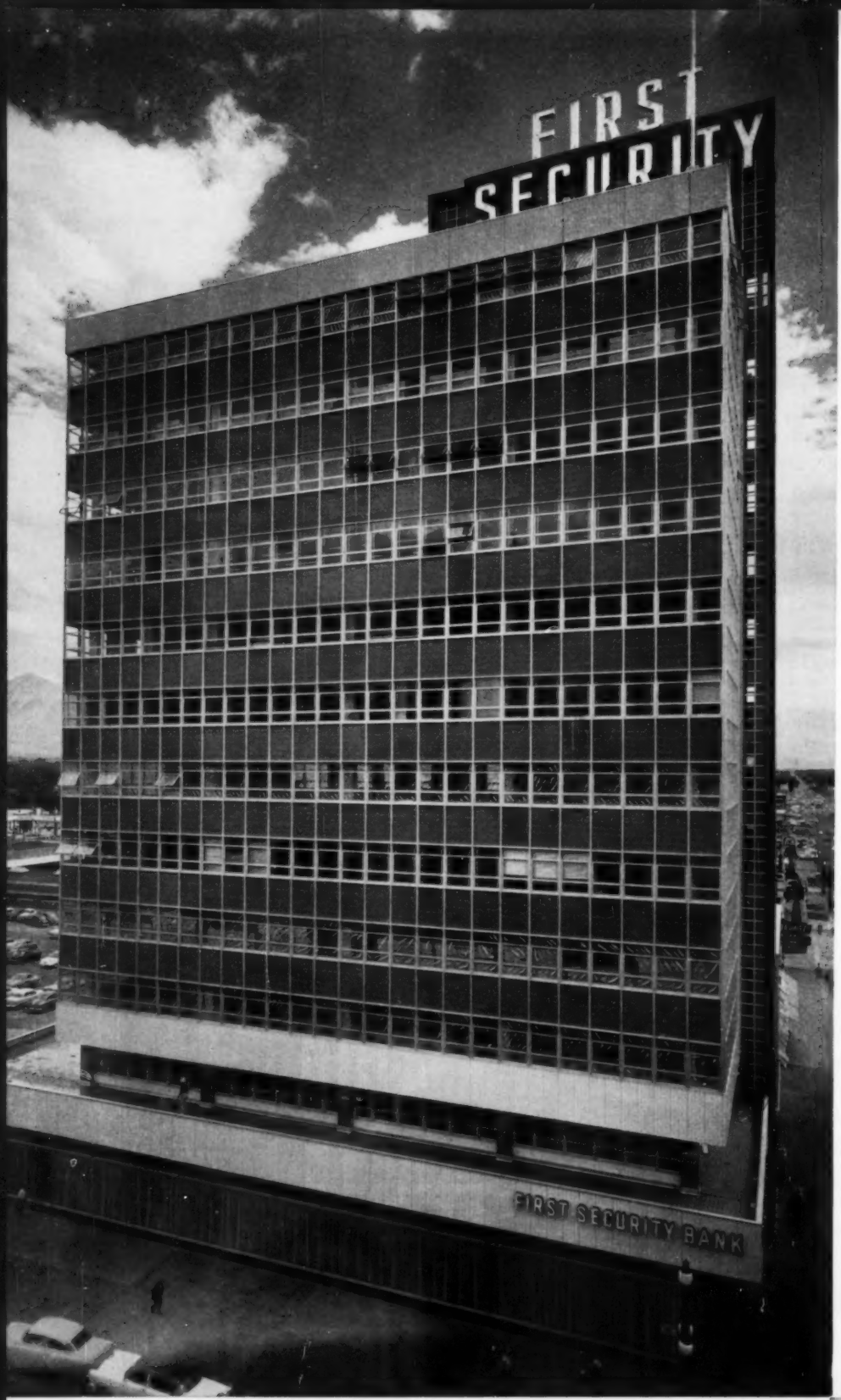
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CITY_____ ZONE____ STATE_____

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Beautiful

First Security Bank of Utah. Architects: Bank Building and Equipment Co.; Associate Architect: Slack W. Winburn; Electrical and Mechanical Engineers: Ferris & Hamig; General Contractor: Utah Construction Co.; Electrical Contractor: Wasatch Electric Company.

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61104

"DECIDEDLY BETTER"
DAY-BRITE®
Lighting Fixtures



The inviting effect of Day-Brite Mobilex units is illustrated in this section of the main banking floor.



Note the uniform lighting on desk-top areas afforded by Day-Brite troffers in this typical office area.

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Rising 12 stories against a Western skyline, the First Security Bank of Utah is a model of visual comfort throughout—from the main banking floor to the roof . . . Corridors and office areas are comfort-lighted with Day-Brite troffers; banking quarters with Day-Brite Mobilex.®

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The Day-Brite "classic line of light" is complete and lends itself to any type of architectural design, treatment and type of construction.

Before you specify, SEE, EXAMINE and COMPARE Day-Brite with any other fixture. Look at the fixtures, not just the pictures. Your Day-Brite representative is always at your service for consultation —his long, specialized lighting experience will prove valuable.



▲ **Unmistakable prestige** is evident in this executive office lighted with Day-Brite troffers in acoustical plaster ceiling.

Corridor lighting illustrates the adaptability of Day-Brite troffers. Note Day-Brite EXIT light. ▶



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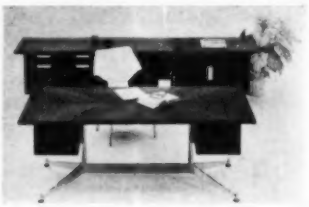
SAINT LOUIS 10, MISSOURI

Quality Air Conditioning and Heat Transfer Equipment Since 1925

AE PRODUCTS

(Continued from page 252)

Lightweight Structural Products in a newly developed line, including roof deck and core material and fireproof doors and partitions, are being produced using a basic material known as *Calsi-Crete*. The material is said to be strong, lightweight, fireproof, moisture-resistant, inert and dimensionally stable. Its U factor varies from 0.17 to 0.22 depending on thickness. *Jackson & Church Co., Saginaw, Mich.*



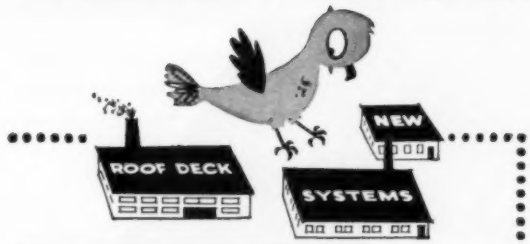
Executive Office Furniture. *The Loring Group*, created in African Mahogany by Detroit designer Mary V. Loring, is comprised of a credenza, or wall unit, and a desk. The 9-ft-long, 2-ft-deep credenza provides two large filing drawers, two small utility drawers and a double-door storage compartment. The 7-ft-long, 3-ft-deep desk provides six shallow convenience drawers and a large conference working area. *The Jasper Desk Co., Jasper, Ind.*



Classroom Furniture. Desks with seat back and desk top made of Fiberglas-reinforced plastic have been designed by William J. Bargen. Molded by The Structurlite Plastics Corp., Hebron, Ohio, the desks are mounted on a movable pedestal understructure in which, in separate adjustments, the seat can be moved upward or downward and the desk upward and outward to fit the pupil. The strong, resilient desks give low light reflectance and are available in green, gray, buff, pink, brown and black. They are distributed by *General School Equipment Co., St. Paul, Minn.*

(Continued on page 260)

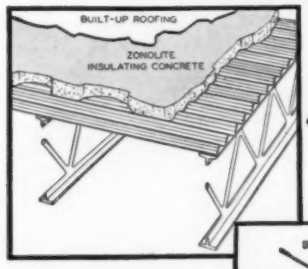
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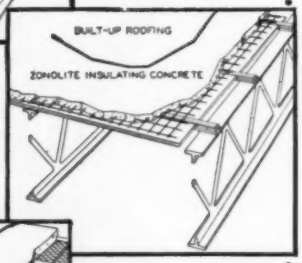
ZONOLITE®

Concrete Roof Systems Are INSULATING! FIRESAFE! PERMANENT! LOW IN COST!

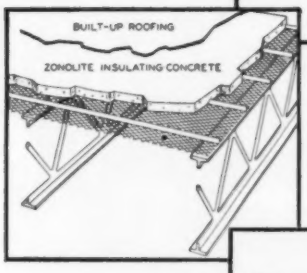
And Adaptable To Any Roof Deck Design!



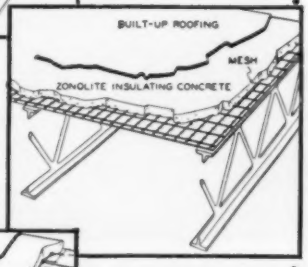
ZONOLITE Concrete over Corrugated Metal



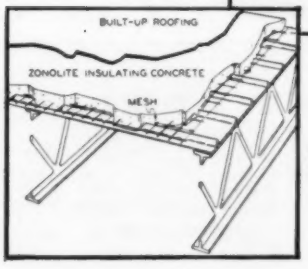
ZONOLITE Concrete over Various Form Boards



ZONOLITE Concrete over High Ribbed Metal Lath



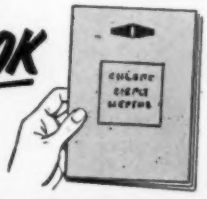
ZONOLITE Concrete over Paper Backed Wire Mesh



ZONOLITE Concrete over Metal Deck

Nowhere in the construction industry is there to be found an equal to Zonolite systems of lightweight roof construction. They are simple in design, lightweight, firesafe, insulating, speedy in erection, strong, durable, have good appearance. Yet in spite of these added benefits, *they are low in cost.* The systems of construction shown here are *only a small portion of the combinations* now made possible by the use of Zonolite vermiculite concrete. To make your next roof deck job —or any job—outstanding, we suggest you send for Zonolite's manual on roof systems.

GET THIS FREE BOOK



Just Published!

Here is a book you'll refer to constantly... gives details of many roof deck systems... including design data, sectional drawings, etc. Mail coupon —no obligation.

ZONOLITE BRAND VERMICULITE AGGREGATES

Mail This Coupon-Today

Zonolite Company—Dept. AR.16
135 S. La Salle St., Chicago 3, Illinois

Please send me your new booklet, giving full details of Zonolite concrete roof systems.

Name.....Firm Name.....

Address.....

City.....Zone....State.....

☐ Architect ☐ Builder Other.....

HOW TO SELECT

TO SOLVE WASTE MATERIAL PROBLEMS

- GREASE 1, 2, 3, 4, 11
- FAT 1, 2, 3, 4, 11
- OIL 5, 6
- GASOLINE 5, 6
- NAPHTHA 5, 6
- KEROSENE 5, 6
- HAIR 7, 10
- LINT 7, 10
- JEWELS 7, 8, 9
- PRECIOUS METALS 7, 8, 9
- PLASTER 8, 9
- COTTON 7, 8, 10
- GAUZE 7, 8, 10
- GLASS GRINDINGS 10
- RUBBER GRINDINGS 10
- ROUGE 9, 10
- SAND 7, 10
- GRAVEL 7, 10
- PARAFFIN 11

* The rapid growth of population with its new housing developments, schools, hospitals, institutions and public buildings, together with our tremendous industrial expansion is causing serious and complex problems in the handling of waste materials.

New codes are being rapidly formulated to control the disposition of waste in sewers and public watercourses. Every new and old building will be required to dispose of waste materials in a manner that will comply with local regulations.

After devoting many years of research and study to this waste problem Josam has become the leader in the development of interceptors to solve all waste problems and meet code requirements. Today, you can select the correct Josam interceptor for each particular waste problem.

This check list of interceptors is a helpful guide in selecting the proper type of interceptor best suited to each specific need. First determine the type of waste material to be controlled, then check the key numbers of the intercepting equipment on the next page.

If your waste problem is not covered in this check list, or if you require a more accurate selection for your specific needs, call your JOSAM representative. From his many years of experience, and his personal knowledge of the wide range of interceptors in the JOSAM line, he can quickly recommend the one that will have exactly the right features for your application.

Now is the time to get acquainted with and prepare for the growing problem of waste control. Take advantage of the many services Josam offers you without obligation. Call your JOSAM representative today or use the coupon on the next page.

Josam
PLUMBING DRAINAGE PRODUCTS

JOSAM MANUFACTURING COMPANY

General Offices and Manufacturing Division • MICHIGAN CITY, IND.

REPRESENTATIVES IN PRINCIPAL CITIES

West Coast Distributor:
JOSAM PACIFIC CO.
San Francisco, Cal.

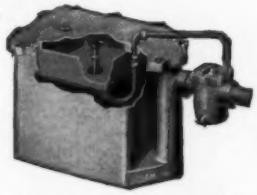
Canadian Manufacturers
JOSAM CANADA LIMITED
Toronto, Canada

INTERCEPTORS

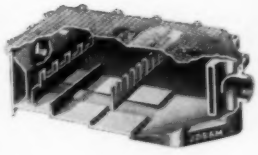
IN ANY TYPE OF BUILDING . . .

SERIES "JH" GREASE INTERCEPTOR automatically draws off grease at the turn of a valve.

An exclusive Josam development whereby the grease that is intercepted and accumulated in the interceptor can be drawn off at the turn of a valve — without removing cover, without touching the grease. A far-reaching advancement in waste removal — pioneered by Josam.



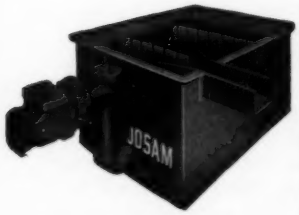
1 Josam Series No. JH cast iron grease interceptor with two way draw-off valve for sinks, kettles and other domestic and commercial service.



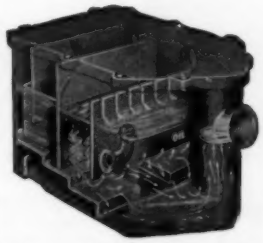
2 Josam Series No. JLA "Low-boy" type GREASE interceptor for dishwashing machines or other low outlet fixtures.



3 Josam Series No. JNC welded steel GREASE interceptors for commercial and industrial applications in hotels, institutions and similar establishments.



4 Josam Series No. PH welded steel GREASE interceptor for packing houses and allied industries.



5 Josam Series No. GA cast iron OIL interceptor with gravity draw-off for garages, service stations, dry cleaning plants and similar services.



6 Josam Series No. GNC welded steel OIL interceptor with gravity draw-off for industrial service in mills, refineries and similar plants.



7 Josam Series No. H-20 HAIR and SEDIMENT interceptor for homes, hotels, barber and beauty shops.



8 Josam Series No. H-30 SEDIMENT interceptor for dental and medical offices, operating rooms, precious metal shops.



9 Josam Series No. H-40 PLASTER and SEDIMENT interceptor for hospitals, laboratories, glass and rubber grinding establishments.



10 Josam Series H-50 HAIR and LINT interceptor for swimming pools, filters, pumps and mechanical laundry equipment.



11 Josam Series No. JRC interceptor of special construction adapted to intercept paraffin and other lighter-than-water materials.

For each of the many basic interceptor designs in the Josam line, there are many variations depending upon the particular requirement. These are clearly illustrated and described in JOSAM Manual "W" on interception of Waste Materials — the most complete authority on the subject in the field. Send coupon for your free copy today.

JOSAM MANUFACTURING COMPANY
MICHIGAN CITY, INDIANA • Dept. AR

☐ *Please send free copy of Manual "W" on Waste Interception.*

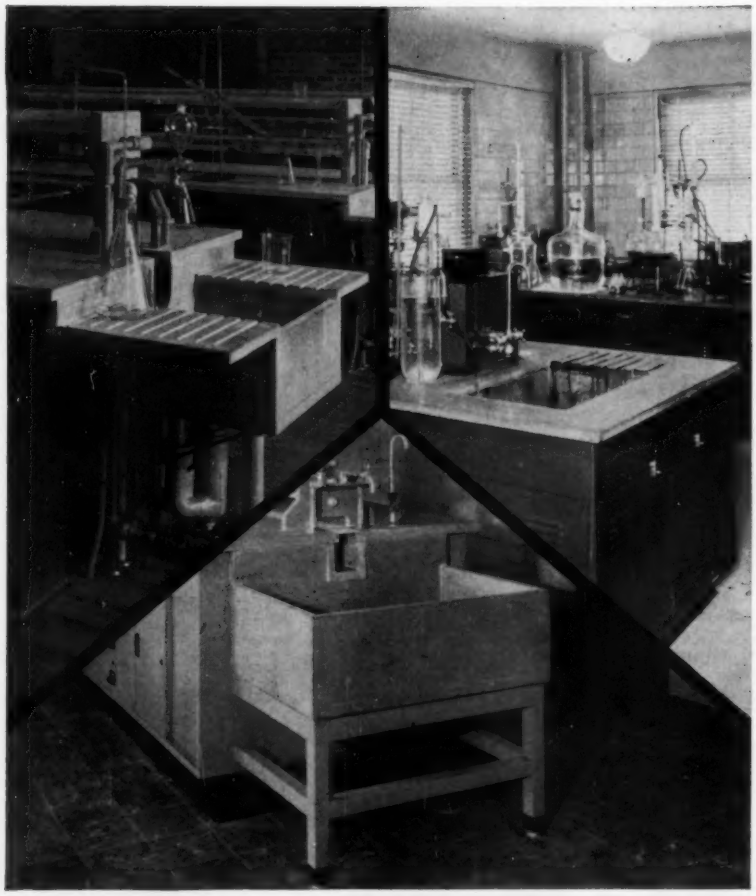
☐ *Please have your representative call.*

Firm .....

By ..... Title .....

Address .....

City ..... Zone ..... State .....



Let's talk "SPECIAL SIZES"

The size and depth of sinks for laboratory and industrial use should be determined by the job they have to do — *and not by available standard sizes!*

With Alberene Stone sinks you can specify any size and depth — without paying a premium.

And with Alberene Stone you get — *the natural silicate stone with the surface that goes all the way thru.* Its all-silicate mineral components resist chemical attack. Low absorbency makes it essentially nonstaining. Discolorations can be removed by scouring or honing without harm to the surface.

For information and technical assistance, address: Alberene Stone Corporation, 419 Fourth Avenue, New York 16, N. Y.

ALBERENE STONE

provides LOW ABSORBENCY protection

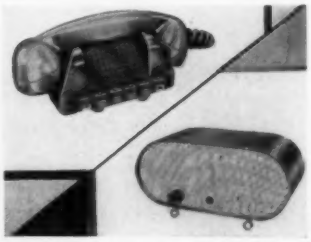
AE PRODUCTS

(Continued from page 256)

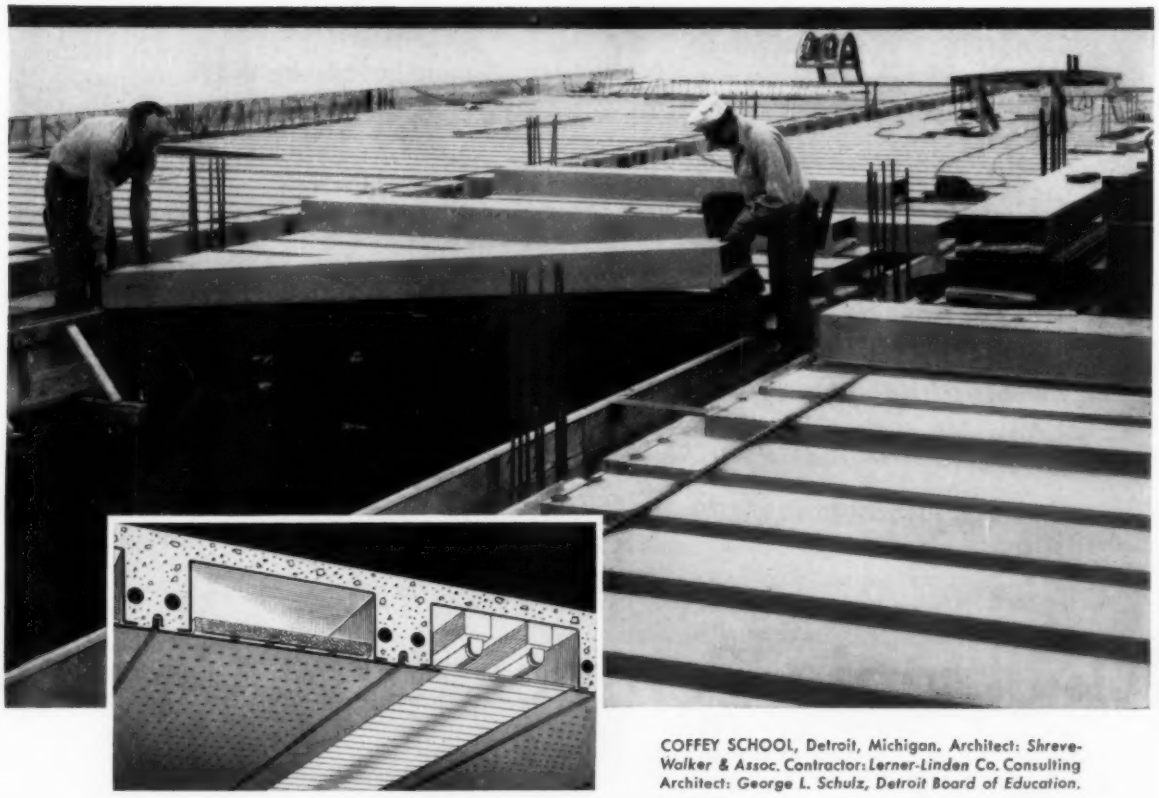
Floor Underlay. *Cork-Tex Underlay*, a ¼- or ½-in.-thick composition material, made of high-grade milling cork, can provide a cushion for a resilient hardwood or flexible tile floor when laid on concrete to reduce impact shock, noise reflection and transmission. *Continental Can Co., 100 E. 42nd St., New York 17, N. Y.*



Automatic Filter Inspector. An automatic device to indicate when unit ventilator filters need replacement reduces maintenance costs by providing a constant check of filter condition. When a filter accumulates its maximum dust load and its efficiency begins to be seriously impaired, the indicator causes the words "change filter" to appear on the front of the unit ventilator cabinet, as shown above. The indicator will be available as a factory-mounted accessory on all *Herman Nelson* unit ventilators. *American Air Filter Co., Inc., Louisville 8, Ky.*



Inter-office Telephone System with from two to ten stations offers the advantages of standard telephone communication and combines in the same system such services as two-way loudspeaker station, voice paging, conference circuit and loud bell signals for noisy areas. The *Connecticut Direct-A-Call* operates from a standard electrical outlet and uses no batteries or tubes. It is designed so that it can be used on top of or mounted on the side of a desk, and occupies only 4 by 6 in. of space. *Connecticut Telephone & Electric Corp., Meriden, Conn.*



COFFEY SCHOOL, Detroit, Michigan. Architect: *Shreve-Walker & Assoc.* Contractor: *Lerner-Linden Co.* Consulting Architect: *George L. Schulz, Detroit Board of Education.*

NEW WAY TO BUILD SCHOOLS . . . FASTER!

Fenestra TROFFER-ACOUSTICAL Panels combine concrete joist forms, built-in acoustical ceilings and recessed lighting troffers

Now you can have better-looking, better-lighted classrooms with fireproof construction and save both time and money. The NEW Fenestra* Troffer-Acoustical Panels—TAC Panels, for short—are designed to wrap up 3 expensive building materials in *one* economical, quickly erected building unit. They permit you to have acoustical treatment and recessed lighting—features that usually require extra time and labor—*built right in the structure itself!*

Here's how it works. As you can see in the photo above, the TAC Panels—either for troffer lighting or metal pan acoustical ceilings—are long-span units. Placed in position on the formwork for the main beams, they provide the forms for the concrete joists and floor slabs. Temporary supports at mid-span while pouring concrete are *all* the additional shoring required. After the concrete is cured, the panels *stay in place* and function as the finished ceiling—complete with built-in acoustical treatment—and as lighting troffers. Only painting and lighting fixture installation are needed to complete the room.

And TAC Panel ceilings are easier to maintain year after year. They can be washed or repainted as often as needed, without affecting the acoustical treatment. There is no hanging ceiling or "stuck on" acoustical material to be damaged or replaced.

Even if your plans are now on the drawing board, they can easily be adapted to use Fenestra TAC Panels. Ask your architect to investigate this new building method, now, or write for a copy of *Fenestra TAC Panel System* that gives you complete details. Detroit Steel Products Co., Dept. AR-1, 2252 East Grand Blvd., Detroit 11, Michigan. *Trademark

Fenestra TAC **TROFFER-ACOUSTICAL BUILDING PANELS**

Patents applied for

Architectural, Residential and Industrial Windows • Metal Building Panels
Electrifloor† • Roof Deck • Hollow Metal Swing and Slide Doors

†Ⓢ

Most promising word in air conditioning control today is electronics. Electronics has brought new techniques, new terms, new questions. ***How important is outdoor compensation? Is automatic sequencing practical for buildings of any size? What about averaging?*** *Here are the answers—in the first of a series of reports from the pioneer manufacturer of electronic controls.*

Electronic Temperature Control

More than 5,000 Honeywell installations have shown electronics to be the most flexible system for any commercial building; it gives better control, more convenience, at less cost.

Honeywell Electronics
Report Number One

HONEYWELL built the first electronic thermostat only half a dozen years ago.

Since then, electronics has become the most exciting concept in the field of commercial heating, ventilating and air conditioning control. The mystery is gone: more than 5,000 working installations by Honeywell alone are proving the value of electronic temperature control to engineers, architects and building management from coast to coast.

You'll find the up-to-date story of electronic control profitable to know—because there's plenty of evidence that electronics is rapidly setting a new standard in the industry.

Developers of the electronic thermostat were looking for better temperature control. They found it—in a small coil of wire that held the means of sensing and correcting temperature change quickly and accurately, without bulk, without clumsy linkages or moving parts.

New facts came to light when these controls were actually put to use. They not only proved to be faster, simpler, easier to maintain. They also were able to do a complete comfort control job in ways ordinary controls couldn't begin to match. And they saved money.

You can now assure a client that where applicable, electronic controls will deliver maximum comfort with maximum convenience, efficiency, and economy.

What are advantages?

What is there about electronic control that makes such benefits possible? Considering specific advantages of electronics will help provide the answer. It may also suggest solutions to some of your own control problems.

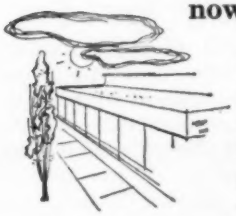
Central Control heads the list of these advantages. The electronic central control panel, set up anywhere within the building, provides a compact supervisory control center from which every vital function of the control installation is directed. Gone is the need for individual thermostat checking and calibration; all adjustments may be made *at the panel.*



comes of age

What this means in terms of savings in manpower and maintenance is obvious. What's more, the panel also eliminates that flaw in many a control system, thermostat tampering by untrained personnel. The central electronic control panel is most at home, of course, in large buildings. But the simplicity of electronics now makes the panel economically feasible even for small structures.

Automatic sequencing now 100% practical



Any air conditioning control system benefits tremendously from automatic change-over from heating to cooling, and from automatic use of outside air to carry part of the cooling load. Now, electronics makes automatic sequencing practical for any job, large or small. It's convenient: the *same* thermostat may sequence from heating to full ventilation to mechanical cooling. It's effective: it utilizes the thermostat's full operating range. It's economical: automatic ventilation economizer cycle, built in, cuts cooling costs impressively; night set-back saves fuel.

With electronics, use of *averaging* thermostats—while no substitute for adequate zoning—is no longer costly and complicated. In controlling an open area as a single zone, for example, it's simple to locate inexpensive electronic thermostats so that load changes peculiar to the enclosure's equipment or occupancy are sensed and averaged out, maintaining a constant comfort level.

Ideal compensation achieved

Electronic controls are essential to the kind of compensation that means *consistent* comfort levels in any building. Shifts in occupancy; variations of wind, sun and cloud effects; sudden changes in outdoor temperature—all are compensated for with greater speed, accuracy and stability through electronics. Automatic winter-summer reset, utilizing an outdoor thermostat, cures temperature drift in winter, air-cooling shock in summer. Which means that comfort conditions inside never change with the weather.



Simplicity is inherent in electronic controls; no specialist is needed for installing or servicing. Wiring is low voltage, with standard color coding—easily understood by any heating and air conditioning technician. Today's installations will be up-to-date for many years to come. Maintenance and equipment aging problems are minimized, because the electronic thermostat contains no moving parts.

Key word: flexibility

These advantages are summed up in one word: *flexibility*. It means that all or any combination of the electronic system's features are readily adaptable to the solution of specialized control problems. The result is better, more efficient, more convenient control, and with important dollar savings.

In fact, it's *flexibility*—in the entire field of temperature control — that helps establish clearly Honeywell's leadership. For only Honeywell makes *all three types* of control systems: pneumatic, electric, electronic, each with distinctive advantages for certain applications. Thus only Honeywell is able, with complete objectivity, to help you select the one system shaped perfectly to the needs of the building and its occupants.

• • •

Ask for our new electronic control booklet which tells more fully how to apply electronics to your control problems. Write Honeywell Dept. AK-1-149, Minneapolis 8, Minn.

Minneapolis-Honeywell Regulator Company

AE LITERATURE

(Continued from page 208)

Short Span Concrete Roof Tile. *Zonatile*, a lightweight, insulating, reinforced roof tile which can be installed over standard structural members, is described in a 4-page brochure (AIA File 10-C and 37-B-2) from *Zonolite Co., 135 S. LaSalle St., Chicago 3, Ill.**

Smithcraft Overall Illumination is a 6-page folder which includes detailed descriptions of the system's features, complete mounting and construction details, and instructions for determining correct illumination intensity. *Smithcraft Lighting Div., Chelsea 50, Mass.**

Electronic Temperature Controls is the subject of a booklet which "tells the architect and consulting engineer in their own language how they can apply electronics to ordinary heating and air conditioning jobs in a great many different types of commercial and industrial establishments." *Minneapolis-Honeywell Regulator Co., 2753 4th Ave. So., Minneapolis 8, Minn.**



Pre-built units matching standard Huntington patterns are effectively used at Morris Harvey College, Charleston, W. Va., by architect Charles A. Haviland, A.I.A.

You're sure of top quality when you specify

HUNTINGTON *Pre-Built Units*

"Made better to look better and last longer"

Complete specifications and detail drawings are available, based on recommendations by leading architects, and covering every aspect of materials and assembly.

Ready for installation on delivery, these pre-built units require no further carpentry or finishing. On-the-site millwork cannot duplicate Huntington's high-quality cabinet work, eye-appealing appearance, solid construction in durable hardwoods, easy and inexpensive maintenance.

Harmonious unified effects are achieved by matching styles and finishes of standard and custom-made pre-built units with Huntington's over 179 versatile seating, sleeping, and case goods patterns.

Economical prices reflect the savings created by high-volume production, with rigid quality controls maintaining Huntington standards of excellence. All costs can be included in construction charges under FHA mortgage requirements.

HUNTINGTON FURNITURE

HUNTINGTON CHAIR CORPORATION
Huntington, West Virginia
Showrooms: Huntington
New York • Chicago • Miami

For specifications and detail drawings, along with information on how Huntington pre-built units will meet your needs at low initial cost and low upkeep cost, simply cut out this coupon and send it with your organization letterhead today—without any charge or obligation.

"Huntington's good taste and high quality are always impressive, never expensive."

B-2

Laboratory Furniture, including center tables, wall tables, fume hoods, radioactive fume hoods, storage cabinets, sectional units, service fixtures, table top materials and special units, is described in a 12-page catalog from *Metalab Equipment Co., Hicksville, L. I., N. Y.*

Hollow Partitions with Channel Studs presents descriptive material, complete specifications, allowable heights for various partition thicknesses, fire resistive ratings and details of construction for these partitions. Technical Bulletin No. 15 (AIA File 20-B-1) is available from the *Metal Lath Manufacturers Assoc., Engineers Bldg., Cleveland 14, Ohio.**

Board and Batten Construction with *Asbestos Flexboard*, for providing a beautiful exterior wall with emphasis on vertical lines, is the subject of a 6-page brochure entitled, "The Modern Trend in Home Design." *Johns-Manville, 22 East 40th St., New York 16, N. Y.**

Engineered Incandescent Lighting is Catalog 255 covering prismatic lenses, metal louvers, recessed reflectors, exit enclosures and other fixtures. 54 pp. AIA File 31-F-2. *The Art Metal Co., Cleveland 3, Ohio.**

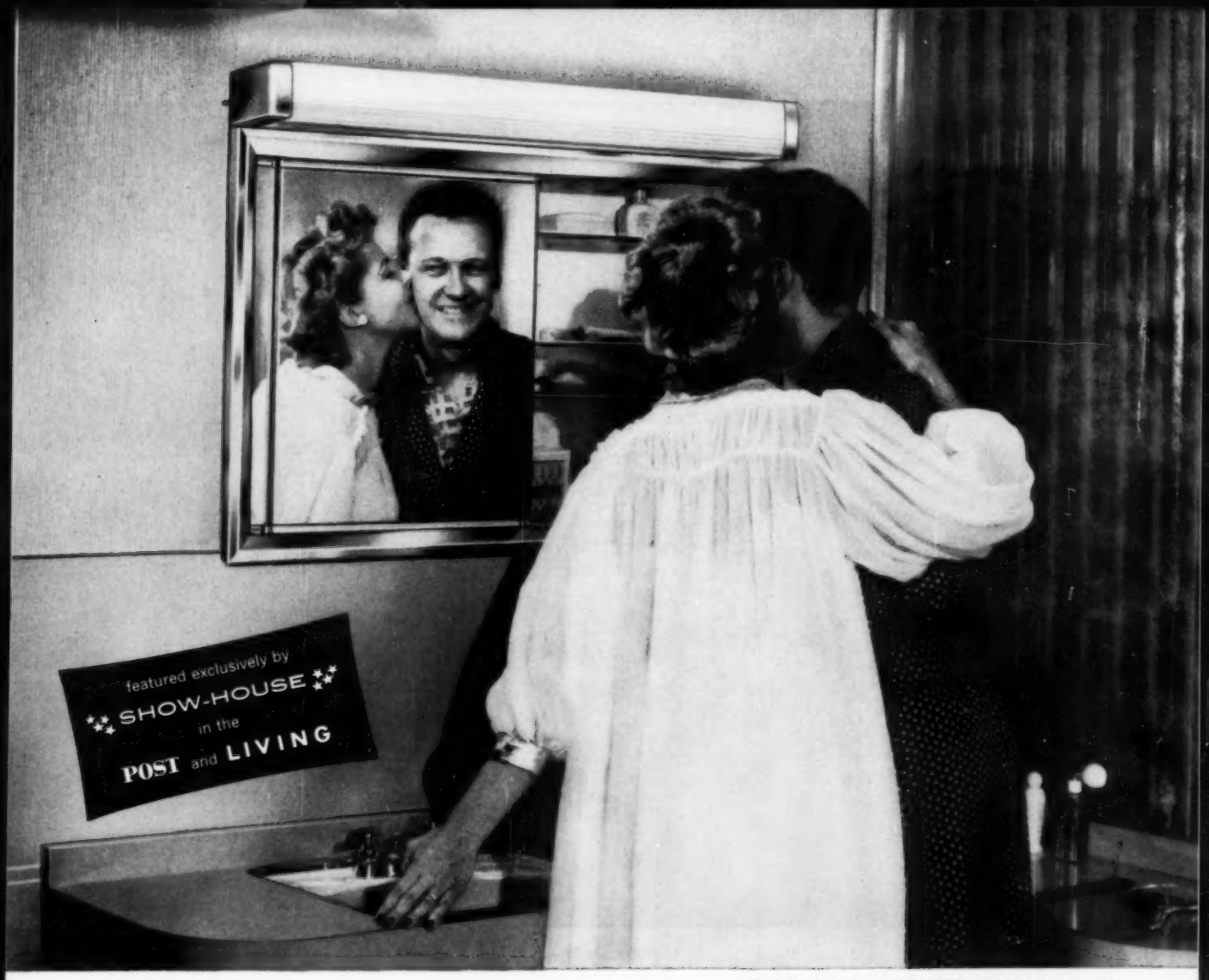
Windows. Full- and quarter-size tracing details for aluminum awning, casement and projected windows as well as window wall units, with complete specifications and hardware schedule for each type of window, are included in a file folder from *Universal Window Co., 950 Parker St., Berkeley, Calif.*

Raceways and Fittings. *Wiremold Catalog and Wiring Guide No. 20* presents the complete line of Wiremold surface metal raceways and fittings and also the Wiremold line of fluorescent and slimline equipment. 132 pp., illus. *The Wiremold Co., Hartford 10, Conn.*

Fans for commercial and industrial ventilation are described, with data tables, in *Bulletin No. 7214* on Model B and Model E Ventura fans. 4 pp., illus. *American Blower Corp., Detroit 32, Mich.**

Air Diffusers. *Agilair Stripline* slot diffusers are pictured in a number of installations in an 8-page brochure from *Air Devices Inc., 185 Madison Ave., New York 16, N. Y.*

(Continued on page 268)



Illustrated: duette Custom Model 1820 FL with tubular fluorescent light, curved translucent shade and electrical convenience outlet and switch.

The *luxury* touch at modest cost!

MIAMI-CAREY'S All-New Trend-Setting *duette!*

Newest of the new, Miami-Carey's famous *duette* cabinets set any bathroom apart with beauty, utility and convenience features no other cabinet has! A woman is instantly attracted by their exquisite styling and glamour . . . accented by *twin*, jewel-like sliding mirror doors! And the man of the house is impressed by the twin compartments, with 3½ times the storage space of ordinary cabinets—room for everything, his *and* hers!

Design extra use-appeal into bathrooms with Miami-Carey *duette* cabinets. Models to suit every need, every budget. See the *duette* line—including the budget-priced duette Princess—at your Miami-Carey dealer's today!

Write for your copy of the 1956 Miami-Carey catalog, "Glorifying the American Bathroom," showing the complete Miami-Carey line of cabinets, accessories and access doors. Address Dept. AR-1

And, you'll find it in Sweets.



MIAMI Carey

Bathroom Cabinets, Accessories, Access Doors and Fans

Miami Cabinet Division, The Philip Carey Mfg. Company, Middletown, O.

Better products for better building since 1873



Pressman checks a final copy in controlled humidity of the press room.

Men and machines bring news to you

American Blower plays vital role in air conditioning one of the world's largest newspaper plants

At the new building of The Philadelphia Evening and Sunday Bulletin, gigantic newspaper printing presses reel off 210,000 newspapers an hour . . . in an atmosphere controlled by American Blower equipment.

A relatively high humidity in the press room is a must – for the speeding miles of paper could tear if too dry, and cause a delay. This added moisture, precisely controlled, also improves printing. The stereotype section, however – where lead printing plates are cast – calls for different treatment. Here, American Blower ventilating equipment works 'round the clock to rid the area of heat generated by the metal pots.

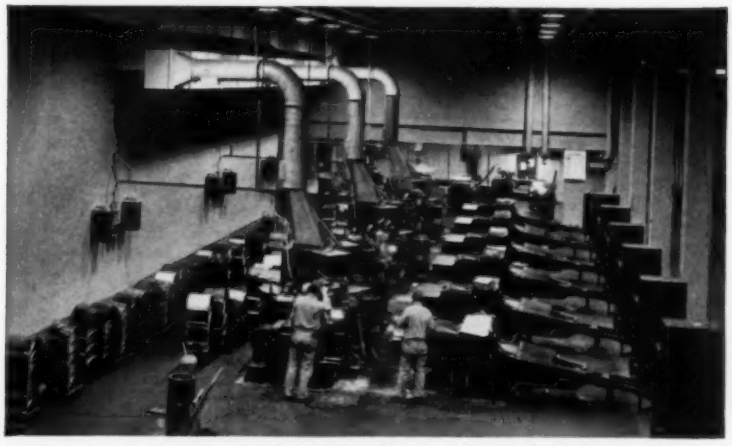
Considered by many as "the mechanical showcase of modern journalism," the new Bulletin Building requires varied air conditions throughout its over 500,000 sq. ft. area. For cooling, heating, ventilating, air filtering, humidifying, and dehumidifying – both men and machines depend on 78 American Blower units in the race of getting news to readers faster.

You can count on American Blower, too . . . whether your air-conditioning needs are large or small, normal or unusual. Just phone our representative near you.



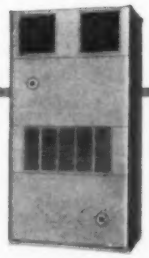


New Bulletin Building. Architects: George Howe & Robert Montgomery Brown. Mechanical Contractors: Riggs Distler & Company, Inc. Special Consultants: William Ginsberg Associates. Consulting Engineers: A. Ernest D'Ambly; Pennell & Wiltberger; Keast & Hood.



In the section where printing plates are made, there is 'round-the-clock ventilation . . . to exhaust heat generated by the melting and casting of lead.

faster—thanks to conditioned air



In addition to equipment for complete central systems—American Blower offers packaged air conditioners for offices, stores, industrial plants, and similar applications.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO
Division of American-Standard

AMERICAN 75th ANNIVERSARY YEAR **BLOWER**

Air-conditioning equipment for every business

(Continued from page 264)

Plate Glass Doors. Complete data on the standard sizes, styles, decorative treatments available and hardware for both ½- and ¾-in. *Tuf-flex* heat-tempered glass doors are contained in a 12-page booklet prepared by *Libbey-Owens-Ford Glass Co., Tuf-flex Door Div., 608 Madison Ave., Toledo 3, Ohio.**

Architect's Specification Guides for *Kentile* products have been prepared by architect Ben John Small so that applicable portions can be edited for use in the architect's finals specs. An enclosed postage-paid card brings as many more copies of the "expendable" sheets as required. 16 pp. AIA File 23-G. *Kentile Inc., Brooklyn 15, N. Y.**

Fire Protection. A 12-page brochure describes fire detection and protection systems and catalogs five basic types of fire extinguishers and their different models for industry, business, farm and home. *Walter Kidde & Co., Inc., Belleville 9, N. J.*



To Aid Your PLANNING---

American Sterilizer Company

Foremost designer and builder of Surgical Sterilizers, Tables and Lights for modern hospitals

Has Prepared

1. A 48-page Guide to Hospital Sterilizers and Technical Departments (A. I. A. File No. 35K)
2. An 8-page Guide to Surgical Lighting (A. I. A. File No. 31-F-28)

for inclusion in SWEET'S ARCHITECTURAL FILE for 1956

Architects, engineers and hospital consultants will find these authoritative guides of sound professional value in preliminary planning for new or expanding hospitals.

We offer, in addition, a complete range of consulting and planning services through our 14 nation-wide branch offices and our Technical Sales Division in Erie. These services make available to you the most advanced treatments for such specialized units as Central Sterile Supply Departments and Solution, Milk Formula, Sub-sterilizing and Utility rooms. Further, they include the preparation of detailed plans, specifications and roughing-in drawings for these phases of your specific hospital project.

ATLANTA • BOSTON • CHICAGO • DALLAS
DETROIT • LOS ANGELES • NEW YORK CITY
PHILADELPHIA • PITTSBURGH • ST. LOUIS
ST. PAUL • SAN FRANCISCO • SEATTLE
WASHINGTON, D. C. • TORONTO, CANADA

AMERICAN STERILIZER
ERIE • PENNSYLVANIA

Churches. A pictorial bulletin showing the use of wood in churches includes exterior, interior and construction photographs. 32 pp. *Timber Engineering Co., 1319 18th St., N. W., Washington 6, D. C.*

Baseboard Air Distribution. Full-color photographs of typical residential, commercial and church installations, and a table of capacities for various lengths of 6-in. pipe and elbows, are presented in a 12-page catalog on the *Thermo-Base* system of air distribution for heating and air conditioning. *Gerwin Industries, Inc., Thermo-Base Div., Michigan City, Ind.**

Transite Gas Vent Pipe for venting domestic gas-burning appliances is a revised 4-page folder for insertion in *Reference Manual of Modern Gas Service*, a publication of the AGA. AIA File 30-D-4. *Johns-Manville Sales Corp., 22 East 40th St., New York 16, N. Y.**

Plastic Surfacing. *Color Magic with Consoweld* features full-color room illustrations and 12 complementary color charts for selection of appropriate patterns and colors to harmonize with any basic decorating scheme. 29 pp. *Consoweld Corp., Wisconsin Rapids, Wis.**

Modular Dimensioned Metal Doors and Frames is the title of a 10-page bulletin which features 1⅜-in. Wooster metal doors and frames that have been used on multiple dwellings, federal- and state-aided housing and residential projects and 1¾-in. heavy-duty commercial doors and frames. *United Steel Fabricators, Inc., Wooster, Ohio.**

Remodeling Garages. Practical ways of remodeling existing garages to accommodate longer, wider cars are revealed in a 12-page booklet, *Modernize Your Garage — Here's How to Do It. Strand Garage Door Div., Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit 11.*

Package Liquid Coolers. An entire new line of B&G packaged coolers is described, with capacity ratings and specification sheets for all sizes, in a catalog issued by *Bell & Gossett Co., Morton Grove, Ill.**

Ceramic Tile. A 6-page folder shows how to plan work-saving kitchens and laundries with ceramic tile, shows many areas where tile can best be used and explains what resilience means in a floor. *American-Olean Tile Co., Lansdale, Pa.**

(Continued on page 272)

Vinylized AZPHLEX *floors*
answer the laboratory floor problem



Parkland Memorial Hospital, Dallas. Roscoe DeWitt, Architect
Albert H. Scheidt, FACHA, Consultant, Dallas



Laboratories put floors to a severe test, subject as they are to unusual types of abuse. Vinylized Azphlex is the *new* and better flooring that is especially qualified to serve in such areas.

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Morris Ketchum, Jr. in *Progressive Architecture*

"An indispensable work for architects and designers involved with the problem of designing creative exhibitions." ***Design News***









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by Richard P. Lohse

Here is the first comprehensive book on modern exhibition design and architecture. *New Design in Exhibitions* gives an international cross-section of classics in this field. Superbly illustrated, this unique volume draws upon the finest work done in the past 20 years by architects and designers in the United States, England, France, Italy, Germany, Holland, the Scandinavian countries and Switzerland.

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The introduction describes exhibition techniques, themes and form as well as the achievements of pioneers in the field from 1851 to 1930. The major portion illustrates national, industrial, small manufacturing, scientific, cultural, social and political exhibitions of many types — 75 in number — ranging from the Finnish Pavilion at the 1937 Paris Exposition Universelles to the "Good Design" exhibition at Chicago's Merchandise Mart in 1950; and from the exhibit of Medieval Italian Goldsmiths at the Triennale di Milano in 1936, to the Haus Berlin exhibition at Hanover in 1951.

For its comprehensive, concrete treatment of a subject never before presented in book form, *New Design in Exhibitions* is an indispensable work for architects and designers as well as all creative exhibitors and manufacturers who wish effective, esthetic display of their products.

Richard P. Lohse is a Swiss architect who has specialized in exhibition design. He is editor-in-chief of *Bauen und Wohnen,* a Swiss architectural journal.

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260 pages
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Situation Themes Form Exhibition techniques
Economic basis and development of exhibitions
The contribution of artistic pioneer achievements
1851–1930 (illustrated)

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Small manufacturing Carriage building
Telephone industry Paints industry
Dyestuffs industry Glass industry Plastics industry
Textile industry Gardening

Exhibition of scientific pioneer achievements in architecture
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Building research Design Art Medieval culture Physics
Experimental research Photography

Exhibitions of social nature;
of Relief organizations
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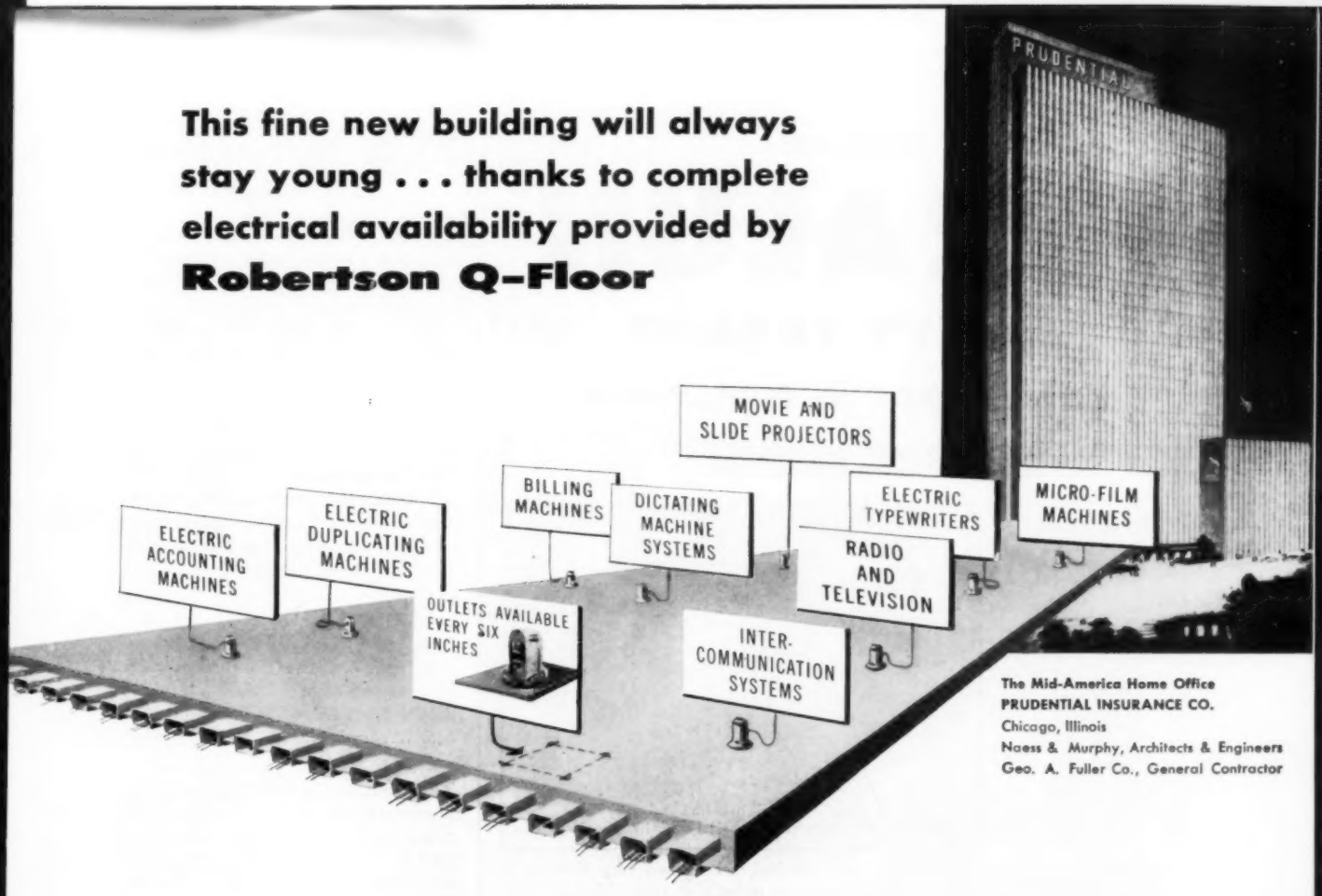
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Geo. A. Fuller Co., General Contractor

The new Mid-America Home Office of The Prudential Insurance Co. of America was designed with an eye toward the future. To meet the ever-increasing wiring requirements of modern electronic office equipment, architects Naess and Murphy prepared the structure to handle the highest electrical load of any office building ever built. To do this job easily and to permit power and telephone outlet changes and additions at minimum cost, Robertson Q-Floor construction was used.

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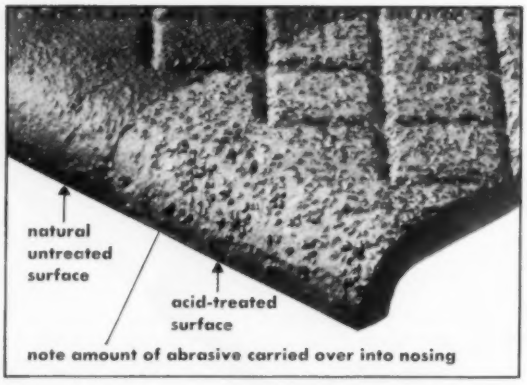
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"test-tube" test | acid-treated surface test

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This is the amount of abrasive in a 6" x 6" section of a Feralun Safety Tread.

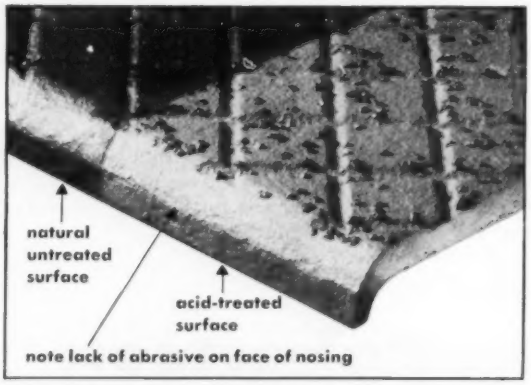


Here is an unretouched photograph of a Feralun tread taken after the paint was removed from a portion of it and acid used to eat away the metal base so as to fully expose the actual abrasive content. *Note the full and even distribution of abrasive carried right over into the nosing.*

COMPETITIVE SAFETY TREAD



This is the amount of abrasive in a 6" x 6" section of an "abrasive tread" offered as a substitute for Feralun.



Here is an unretouched photograph of an abrasive tread, purchased on the open market, of a type sometimes offered as an equal to Feralun. It has had identical treatment as Feralun tread above. *Compare the meager amount of abrasive and its spotty distribution with that of Feralun.*

Feralun is available as treads, thresholds, floor plates and elevator sills. Also in Bronzalun, Alumalun and Nicalun. See Sweet's Catalog 1956—13b/Am.

AB 131

AMERICAN ABRASIVE METALS CO., IRVINGTON 11, N. J.

AIA LITERATURE

(Continued from page 268)

Industrial Plant Ventilators are the subject of a 4-page bulletin which gives dimensions, capacities, sectional drawings and operating conditions for power roof, continuous ridge and round gravity ventilators. *American Steel Band Co., Box 565, Pittsburgh 30, Pa.**

Store Fronts. *The Most Important Display of All* is a 4-page brochure which shows before-and-after pictures of several stores which have been "glamorized" with facades of Davidson Architectural Porcelain Panels. AIA File 15-H-2. *Davidson Enamel Products, Inc., 1113 E. Kibby St., Lima, Ohio.*

Insulation of its *Milcor Lok-Rib* steel buildings by means of *Fiberglas* products is described in a 12-page, illustrated catalog from *Inland Steel Products Co., 4157 W. Burnham St., Milwaukee 1, Wis.**

The Modern Wood School is a 24-page brochure which describes building techniques such as plank and beam, wood joist roof framing, trussed rafters, glued laminated arches and timber trusses, with illustrations of schools throughout the country. *National Lumber Manufacturers Assoc., 1319 18th St., N. W., Washington 6, D. C.*

Plastic Pipe. Physical and chemical properties of *National* polyvinyl chloride plastic pipe are tabulated, and applications and installation procedures are outlined, in a 30-page booklet from *National Tube Div., U. S. Steel Corp., 525 William Penn Pl., Pittsburgh 30, Pa.*

Latex Concrete Topping, a material that looks like concrete and can be applied in a thin layer over 1/16 in. on any clean, stable surface, even glass, is described in a special bulletin supplementing other data on industrial flooring and underlayments from *The Camp Co., Inc., 6958 So. State St., Chicago 21, Ill.**

Weathersealed Steel Frames for horizontal sliding windows and a complete curtain wall system are detailed in a 4-page, illustrated brochure covering the bottom roller, top roller hung and dual-glaze *Steelbilt* frame types installed in three different types of construction. AIA File 16-E. *Steelbilt, Inc., 18001 S. Figueroa, Gardena, Calif.*

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This page advertisement in Business Week, January 28, launches a series of messages to our public and your clients, outlining Sylvania policy about the role of the architect and engineer in lighting installation.

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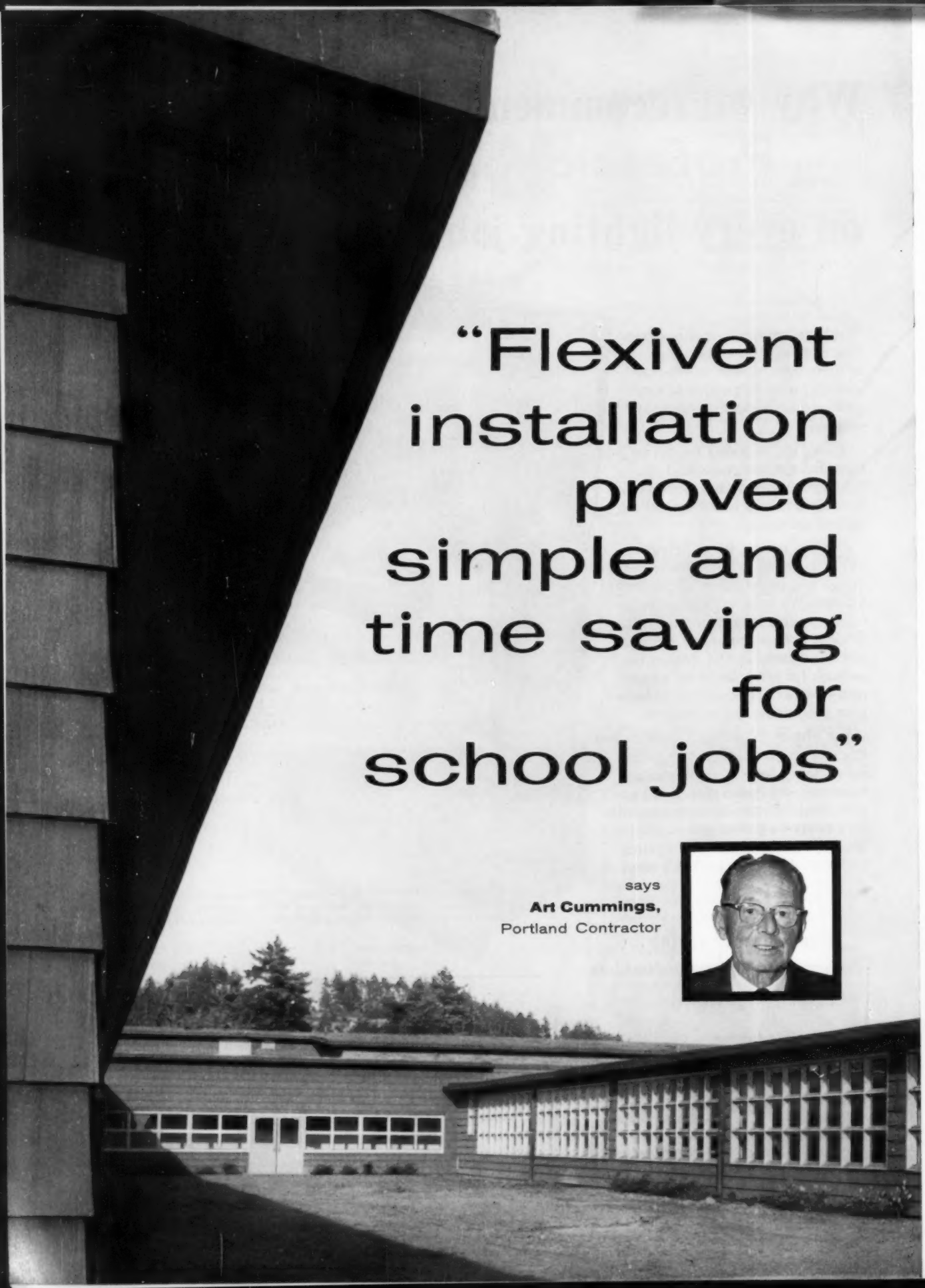
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"Flexivent installation proved simple and time saving for school jobs"

says
Art Cummings,
Portland Contractor

700 Flexivent Window Units were specified for Elizabeth Hayhurst School in Portland, Oregon, by Dougan & Heims, architects. Builder Art Cummings reports, "We're very much impressed by the ease of installation of Flexivents. It's the most simple and time-saving of any installation we have made on a job of this type."

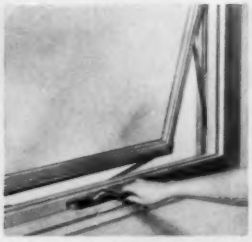
Extreme versatility of Flexivents for school construction shows up in adaptability of grouping to style of building as well as in combination of fixed and ventilating sash to provide bright, airy classrooms with plenty of ventilation.

For information on the advantages of Andersen Flexivent Units for schools and commercial buildings you design, see Sweet's Architectural Files or write Andersen for Detail Catalog or Tracing Detail File. WINDOWALLS are sold throughout the country including the Pacific Coast.

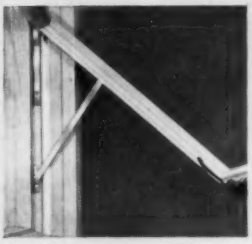
Flexible is the word for Flexivent®



Standard sash lock on bottom rail pulls sash securely shut, locks it firmly in place with no annoying rattles.



Roto Lock Operator (optional) works under screen with awning units. Dual arms pull both ends in tight.



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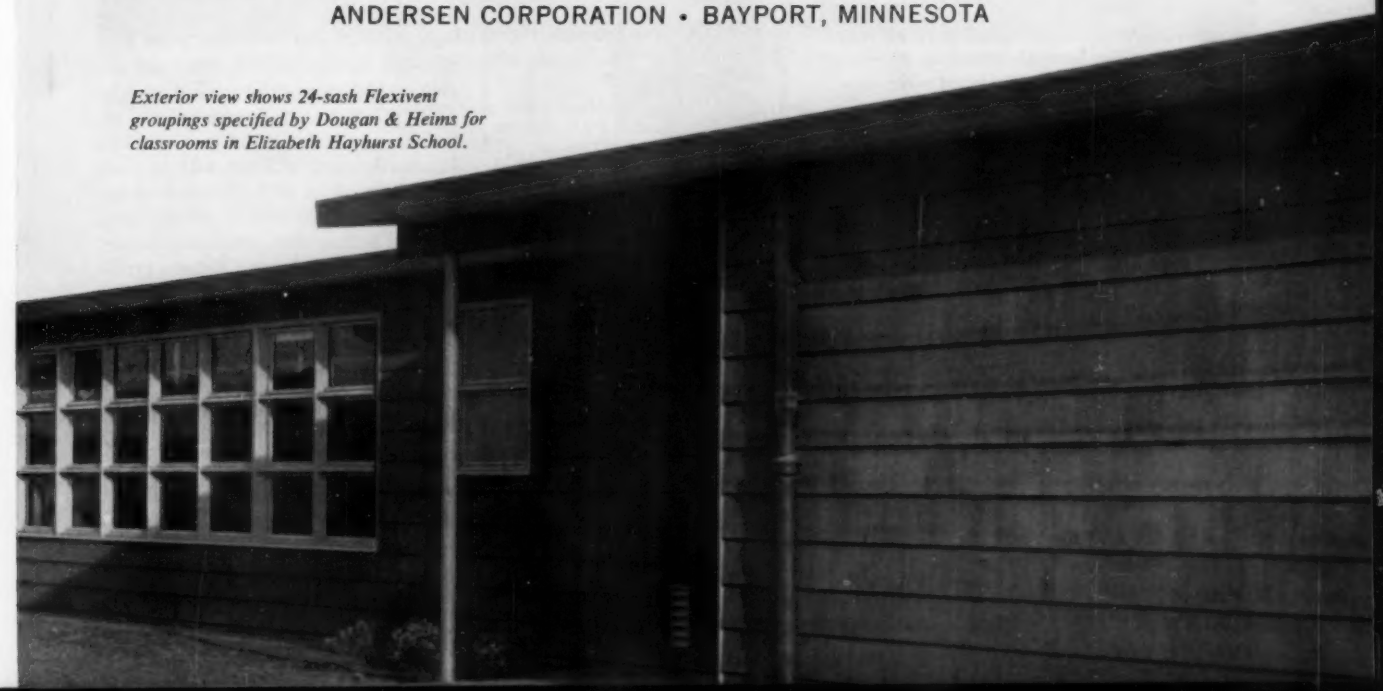
Snap Lock is ideal for out-of-reach locations. Easily operated with any standard make window pole.

Andersen Windowalls

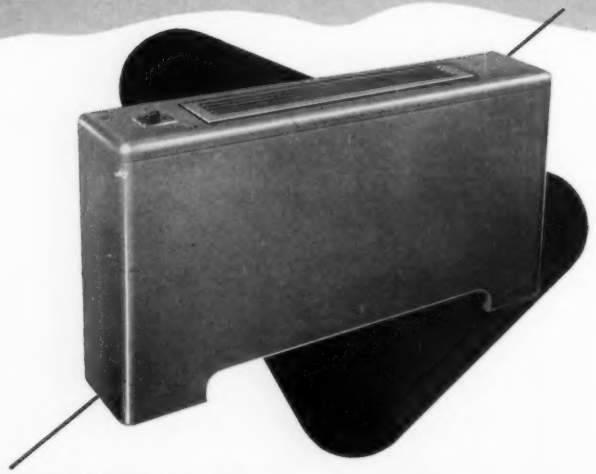
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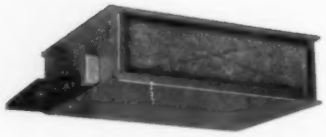
Exterior view shows 24-sash Flexivent groupings specified by Dougan & Heims for classrooms in Elizabeth Hayhurst School.



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THE RECORD REPORTS

REVIEWING THE RECORD

(Continued from page 24)

cept for a few pieces such as the one on Mont St. Michel or the one on contemporary Parisian design, was in American architecture and very much in the steel-frame construction of American engineering. Rather than decrying the commercial expediences which demanded such wide use of the steel frame, he was inclined to think them a good thing.

He did deplore, however, the failure of the architects to find a solution to the architectural problems presented by the skyscraper. Although he was sympathetic to the difficulties of expressing such a new type of construction, he felt that architects might do better if they did not evade the issue by approaching the tall building as a column with base, shaft and capital. Discussing one skyscraper in November 1903, Schuyler commented: "What the steel-framed construction tends to become, what is the practical basis of such architecture as can be evolved from it, may be seen as one watches the skeleton arising undraped, or, still better, as one looks at the back or side of a towering structure, with its mere veneer of brickwork, the back or side unregarded by the architect, who concentrates his architecture on the street front that is meant to be seen, and leaves the architecture elsewhere to take care of itself, as it of course fails to do. One sees that the ultimate solution of the architecture of the skyscraper must be the recognition that it is a skeleton, and the expression of its articulations, with the protective envelope reduced to its lowest terms and simplest expression. . . . What the architects of skyscrapers are called upon to do is to create a new architecture, an architecture which in its problems has immensely more affinities with modern engineering than with historical architecture. And this task is sprung upon them at a time when, more than at any previous time in human history, architectural education has to do exclusively with reproduction and imitation, and less than at any with invention. Honor to the very few who have tackled this gigantic task, and every allowance for their shortcomings in the fulfillment of it!"

The appeal which engineering held for Schuyler was evidenced by a number of articles on bridges, as well as by his

(Continued on page 280)

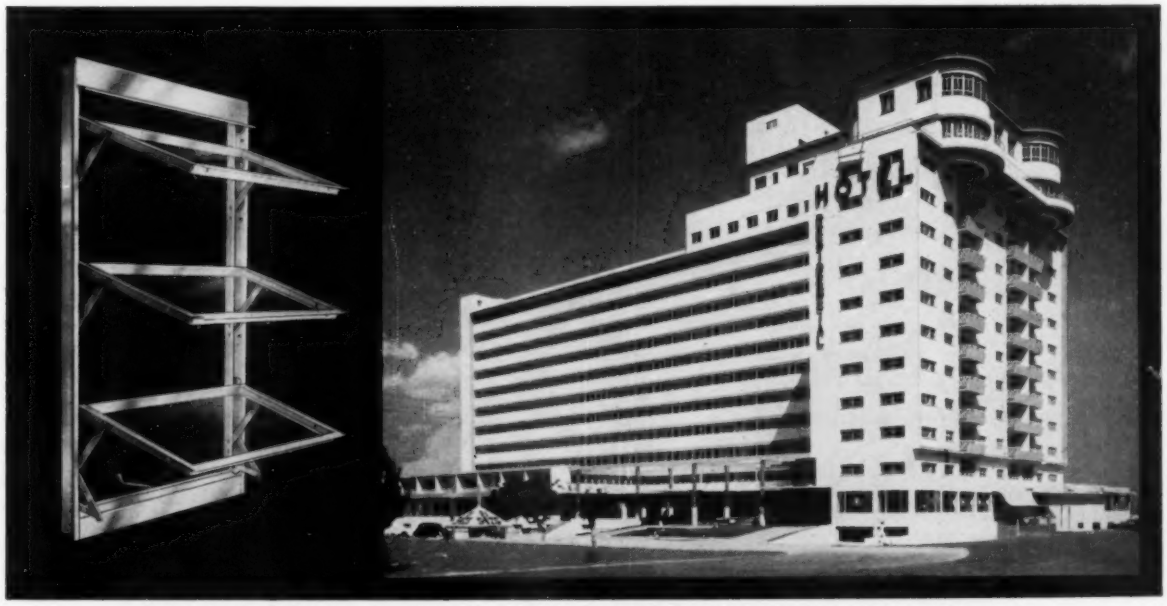
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HAVANA, CUBA Hotel Residencial, "Rosita" de Hornedo. Arquitectos: C. Martinez Marquez, Isidro Cordoves Jr.

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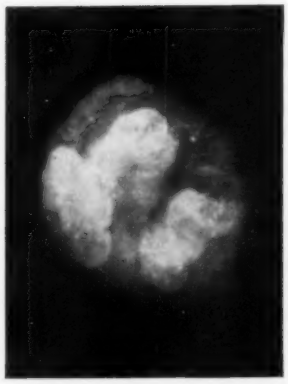
STRUCTURALLY STRONG—Independent laboratory testing has proved Fesco Board to be compressible, yet essentially stable. In actual compression tests, compressed to ½ its thickness, Fesco Board withstood 170-lbs. p.s.i. and to prove its inherent strength withstood 55-lbs. p.s.i. of transverse pressure.

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The unique, exclusive properties of Fesco Board are the properties of expanded Coralux perlite—of which it is made. In this impervious, air-entrained mineral is found the lightness, the permanence, the incombustibility, the moisture resistance so desirable for masonry, steel or wooden roof deck applications.

For Fesco Board perlite is expanded and annealed at temperatures of 1700°F to form hermetically sealed beads containing scores of air cells compartmented and reinforced by membranes of glass. They are impervious to moisture, high in permanent insulation value and—fused at such high temperatures—are incapable of burning. In fire-proof plaster and cement, expanded Coralux Perlite has been assigned fire-ratings of up to 4 hours. Write today for samples and technical data.



MOISTURE RESISTANCE TEST DATA: Fesco Board has no capillary or wick-like attraction for moisture as do fibrous materials. Moisture resistance tests by a nationally known laboratory read as follows:

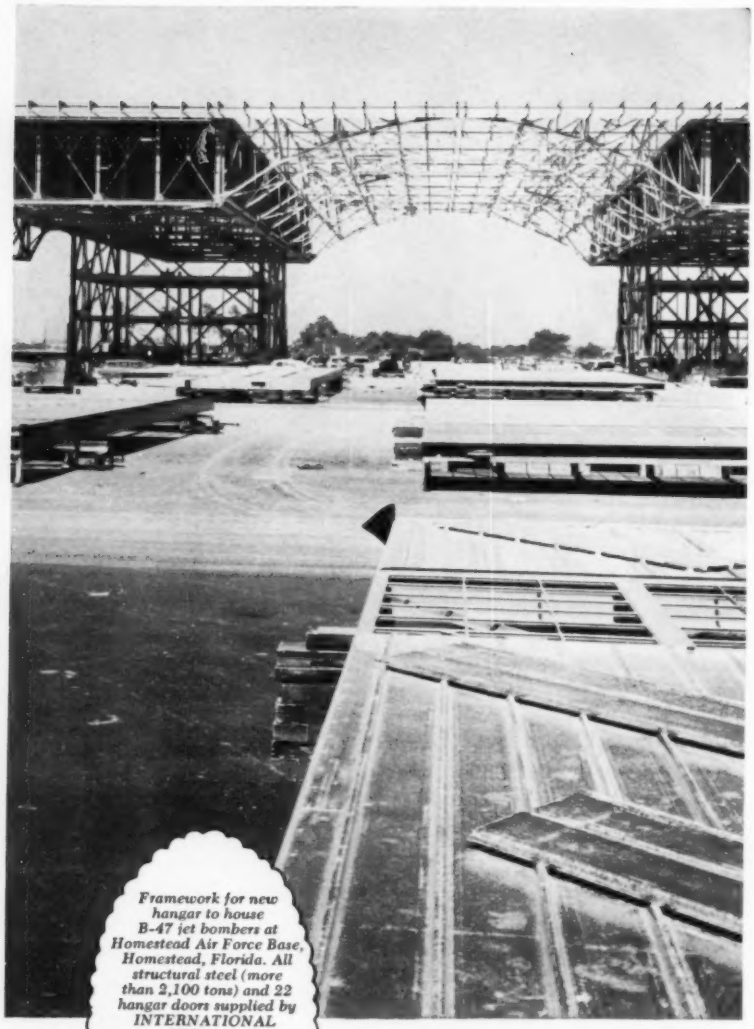
Thickness Inches	% Absorption By Volume	
	2 Hour	24 Hour
1	0.5	1.4

From 0 to 100% relative humidity no volume change is experienced in Fesco Board.



ABOVE: Photomicrograph (microscopic X-ray) of a granule of expanded perlite shows how expansion under 1700°F temperature hermetically seals the air cells (lighter areas), creating ideal insulation. Granule shown was photographed with sodium light.

FOR TIGHTER JOINTS, TRUE-FIT CORNERS Rigid Fesco Board does not "dog-ear", trims smoothly, is dimensionally stable, and easy to handle for a tight, neat fit at joints and corners—a continuous shield against fire and moisture. Roofers applaud its ability to "take it" under heavy work traffic and equipment.



Framework for new hangar to house B-47 jet bombers at Homestead Air Force Base, Homestead, Florida. All structural steel (more than 2,100 tons) and 22 hangar doors supplied by INTERNATIONAL SERVICE.

lots of wing room needed in a "B hive" like this

OVER 81,000 SQUARE FEET, in fact, is the amount of unobstructed floor space required — to accommodate the huge B-47 jet bombers housed in this giant hangar. To provide this vast wide-open area called for more than 2,100 tons of structural steel, much of it specially fabricated to assure adequate supporting strength. Despite this extra-heavy tonnage, International Service spanned the distance to keep construction on schedule . . . supplying all structural steel and all hangar doors as well. Write for your copy of the International Steel Facilities Guide.

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THE RECORD REPORTS

REVIEWING THE RECORD

(Continued from page 276)

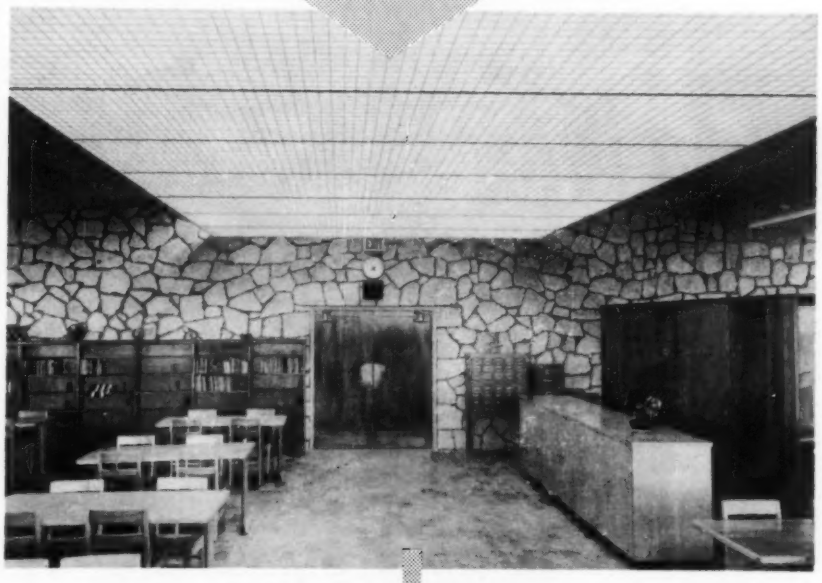
pieces on skyscrapers, and he frequently expressed a regret that engineering and architecture should be separated at a time when their union was so desirable. He did not, indeed, understand why architecture and engineering should be regarded as two distinct fields. He remarked in the issue of July-September 1894: "The art of architecture is divided against itself. The architect resents the engineer as a barbarian; the engineer makes light of the architect as a dilettante. It is difficult to deny that each is largely in the right. . . . In general, engineering is at least progressive, while architecture is at most stationary. And, indeed, it may be questioned whether, without a thought of art, and, as it were, in spite of himself, the engineer has not produced the most impressive, as certainly he has produced the most characteristic monuments of our time." While favoring an architectural solution to the problems posed by the new technology, Schuyler felt himself forced to admit the superior position occupied by the engineer over the architect in any contest dealing with these problems. In December 1907 he wrote, "With the existing harsh and unnatural divorce between architecture and engineer, between artistic, or pseudo-artistic building and undisputedly scientific building, the 'artist' who cannot invent or even compute a construction is at a great disadvantage compared with the scientist who can. When he tells the scientist that a certain disposition is ugly, the scientist may retort upon him that it is necessary. Probably, one who has faith that the necessary cannot be the ugly may say necessarily, this is not the case. But the unscientific artist cannot prove to the inartistic scientist that it is not the case. He has to apply to the culprit for the knowledge whereupon to condemn him. He himself does not know enough."

In March 1910 his restatement of faith in the art of engineering was stronger: "Although modern engineering, as applied science, is young, beginning only some years after the beginning of the 19th century, the art of metallic architecture is much younger yet, beginning not long before the beginning of the 20th. It has hardly a past. It has an immeasurable future. Its present practitioners are its pioneers. . . . If the pioneers of the art still in its infancy

(Continued on page 284)

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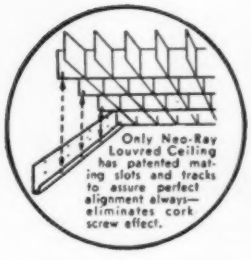


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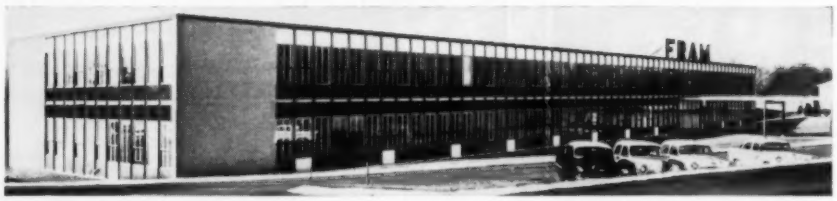
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Michigan Bell Telephone Company, Port Huron, Mich. Smith, Hinchman and Grylls, Inc., architects. E. J. Kahmann Co., contractor.



Fram Office Building, East Providence, Rhode Island. The Architects Collaborative, architects. Gilbane Building Co., contractors.



School and Convent, Church of the Holy Cross, Bronx, N. Y. York and Sawyer, architects. James King and Son, Inc., contractor.

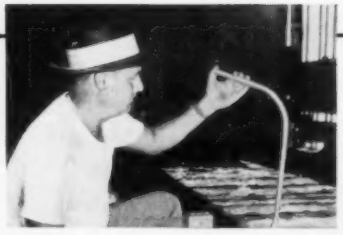


Clemson Barracks, Clemson College, South Carolina. Lyles, Bissett, Carlisle and Wolff, architects. Daniel Construction Co., contractors.



Animal Science Building, University of Arkansas, Fayetteville, Ark. Ginocchio, Cromwell & Associates, architects. Harmon Construction Co., contractor.

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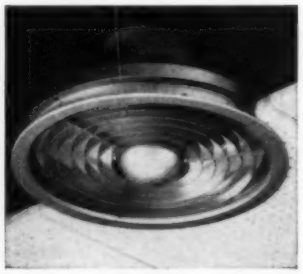
Lamp replacement costs for most popular types of downlights using reflectorized lamps will approximate three times the cost of lamp replacements for Silver-spot and Silver-dot units.

2/3 THIRDS — POWER COST...

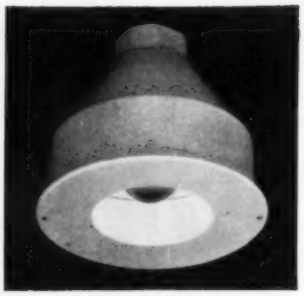
Since many of the commonly used downlight devices employ 150 watt lamps, the 100 watt Silver-spot or Silver-dot units will cost only two thirds as much to operate.

3/ TIMES — LIGHT OUTPUT...

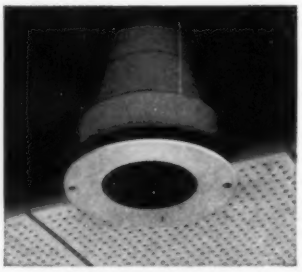
Performances of downlights varies greatly with design and light distribution. In general Silver-spot and Silver-dot produce more effective footcandles within the designed beam. This increase in illumination averages about three times that afforded by other devices but in some cases exceeds five times the illumination within specified zonal limits.



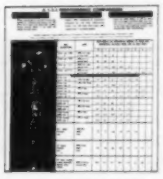
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THE RECORD REPORTS

REVIEWING THE RECORD

(Continued from page 280)

can clear their minds of irrelevancies and observe the principle of 'hoc age' — 'do what you are doing' — they have the consolation of knowing that, if they are surpassed and even superseded, they will still not be discredited. They are the midwives of an infant but living art, whereas the practitioners of architecture in the old materials who are content to practice it after formulae derived from the old forms, so often seem but the undertakers of an effete and dead one."

Montgomery Schuyler's writings in Architectural Record, 1891–1917:

The Romanesque Revival in New York; July-Sept. 1891, pp. 7–38.

The Romanesque Revival in America; Oct.-Dec. 1891, pp. 151–199.

State Buildings at the World's Fair; July-Sept. 1893, pp. 55–71.

Last Words on the World's Fair; Jan.-March 1894, pp. 291–301.

A History of Old Colonial Architecture; Jan.-March 1895, pp. 312–366.

Modern Architecture; July-Sept. 1894, pp. 1–13.

The Works of the Late Richard M. Hunt; Oct.-Dec. 1895, pp. 97–180.

Cyrus L. W. Eidlitz; April-June 1896, pp. 411–435.

The Works of R. H. Robertson; Oct.-Dec. 1896, pp. 184–219.

Henry Janeway Hardenbergh; Jan.-March 1897, pp. 335–375.

The Works of Cady, Berg & See; April-June 1897, pp. 517–552.

The Works of Francis H. Kimball and Kimball and Thompson; April-June 1898, pp. 479–518.

The Sky-Scraper Up to Date; Jan.-March 1899, pp. 231–257.

The Small City House in New York; April-June 1899, pp. 358–388.

Our Acquired Architecture; Jan. 1900, pp. 277–314.

Nouveautés de Paris; April 1901, pp. 361–392.

Mont St. Michel; Jan. 1902, pp. 10–36.

"Monumental" Engineering; Oct. 1901, pp. 615–640.

The Art of City Making; Jan. 1902, pp. 1–26.

The New Stock Exchange; Sept. 1902, pp. 413–420.

The New White House; April 1903, pp. 359–388.

Recent Church Building in New York; June 1903, pp. 509–534.

The Evolution of a Skyscraper; Nov. 1903, pp. 329–343.

The Architecture of West Point; Dec. 1903, pp. 462–492.

A Modern Classic; May 1904, pp. 431–444.

The Works of Barney and Chapman; Sept. 1904, pp. 203–296.

New York Bridges; Oct. 1905, pp. 243–262.

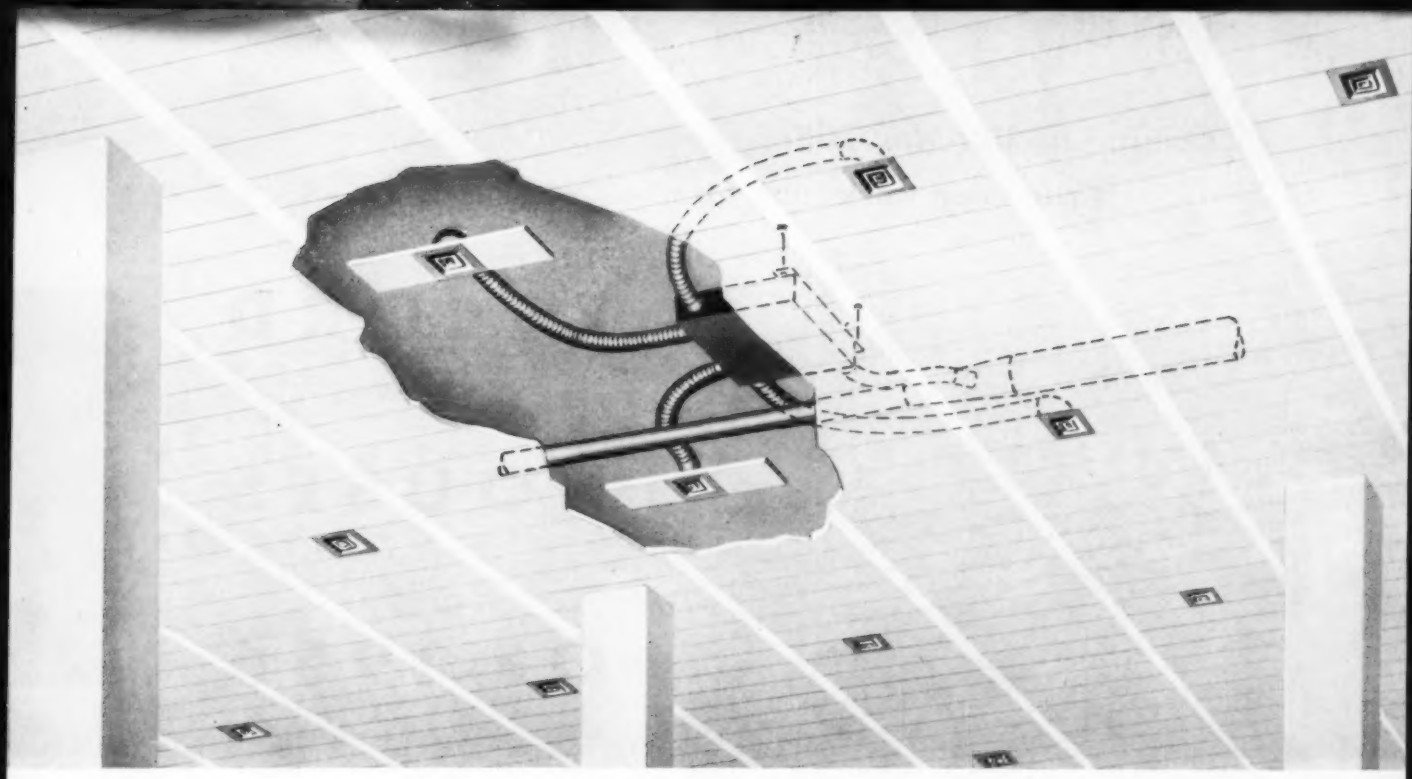
The New New York Houses; Feb. 1906, pp. 83–104.

The Education of a Colonial Carpenter; March 1906, pp. 227–229.

Two New Armories; April 1906, pp. 259–264.

The New Custom House at New York; July 1906, pp. 1–14.

(Continued on page 288)



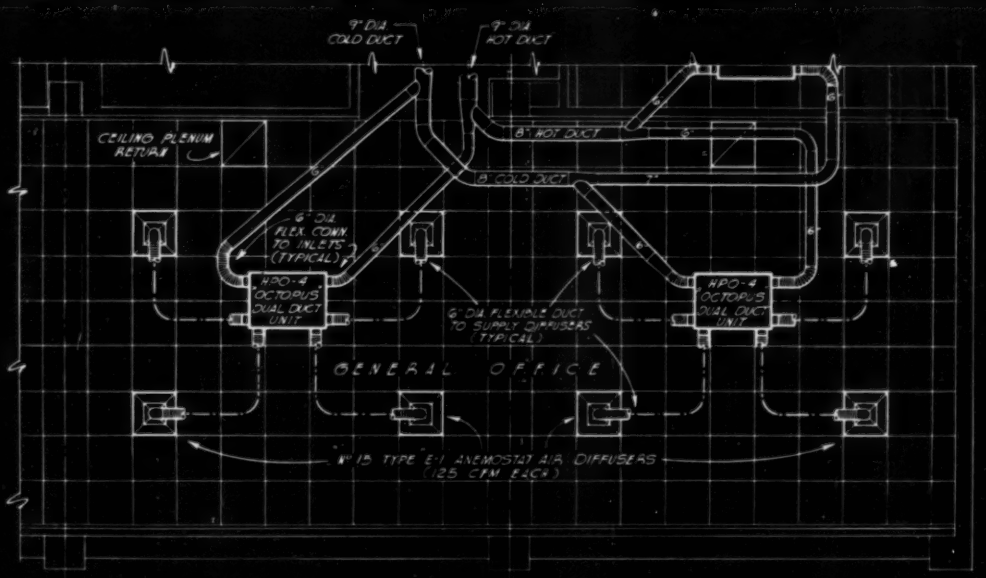
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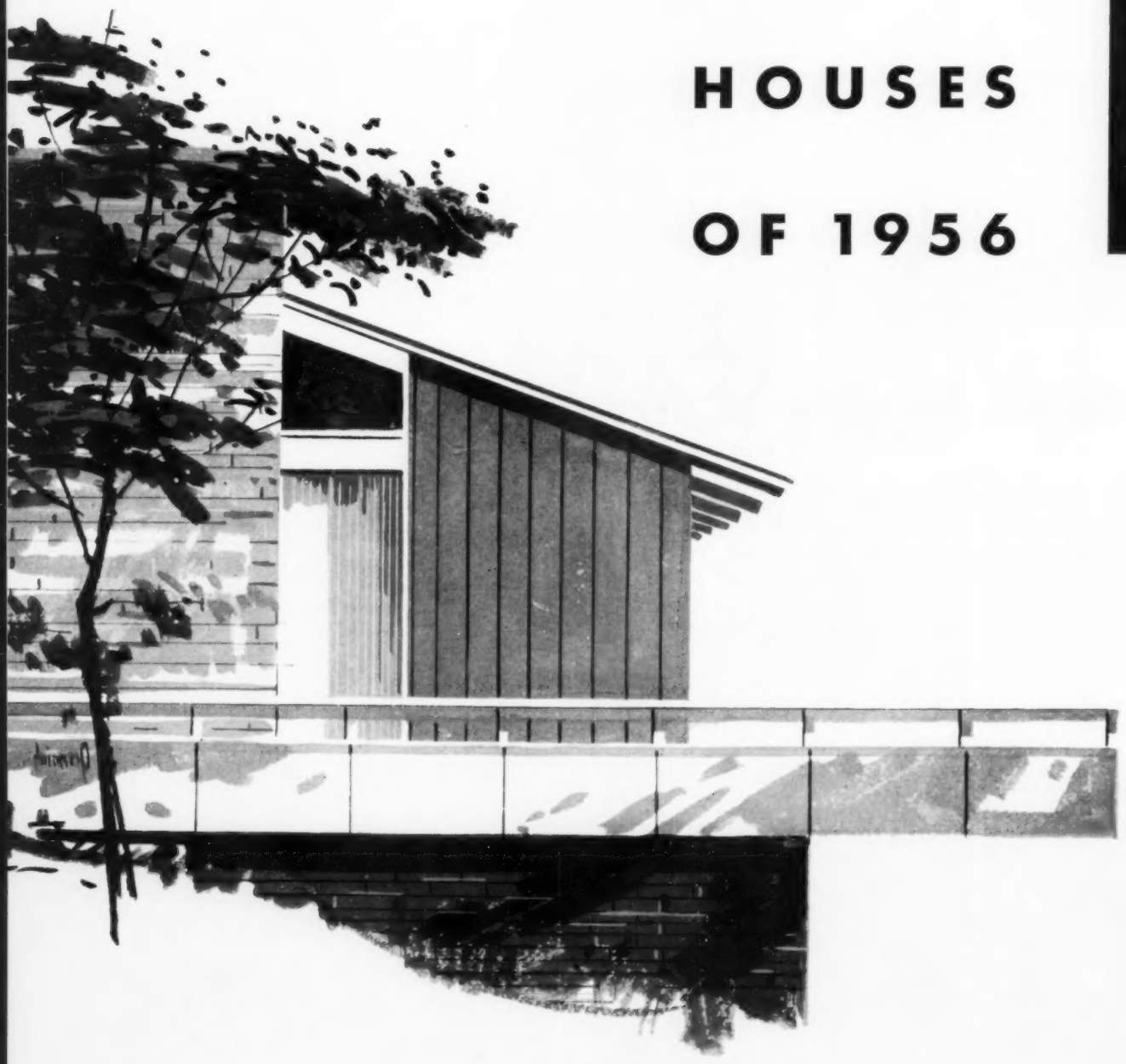


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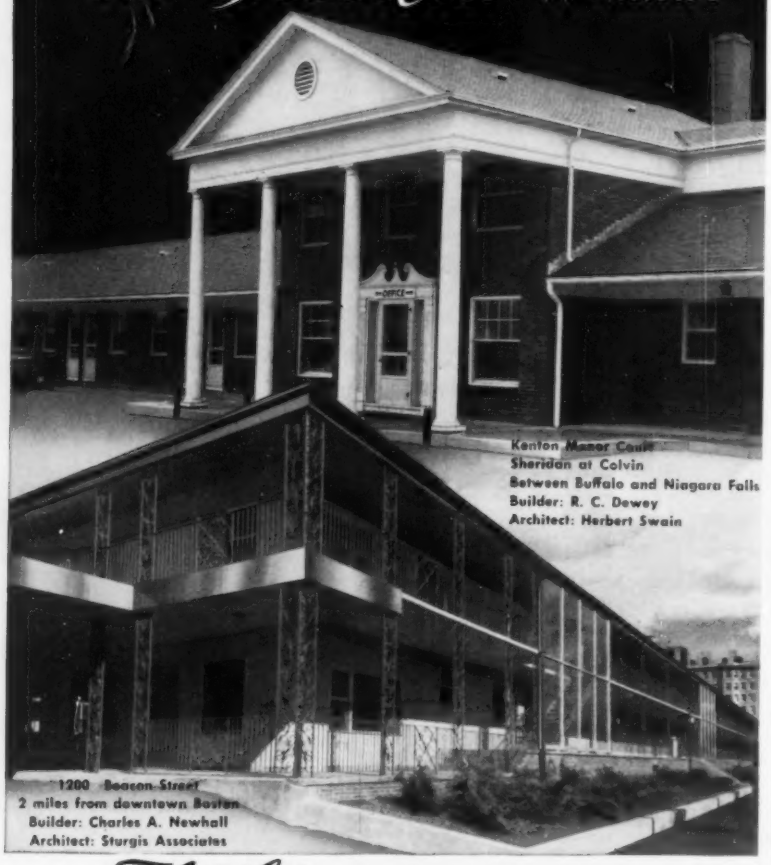
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THE RECORD REPORTS

REVIEWING THE RECORD

(Continued from page 284)

The College of the City of New York; March 1907, pp. 165–185.

Some Recent Skyscrapers; Sept. 1907, pp. 161–176.

An Interesting Skyscraper—The Hermitage; Nov. 1907, pp. 365–368.

Bridges and the [New York] Art Commission; Dec. 1907, pp. 469–475.

The Building of Cincinnati; April 1908, pp. 337–366.

A Great American Architect: Leopold Eidlitz; Sept. 1908, pp. 163–179; Oct. 1908, pp. 277–292; Nov. 1908, pp. 365–378.

Round About Los Angeles; Dec. 1908, pp. 430–440.

The Restoration of Fraunces' Tavern; Dec. 1908, pp. 444–448.

Russell Sturgis; March 1909, pp. 146, 220.

Our Four Big Bridges; March 1909, pp. 147–160.

The Architecture of Trinity Church; June 1909, pp. 411–425.

Italian Gothic in New York; July 1909, pp. 46–54.

The Architecture of American Colleges; Harvard—Oct. 1909, pp. 243–269; Yale—Dec. 1909, pp. 393–416; Princeton—Feb. 1910, pp. 129–160; New York City Colleges—June 1910, pp. 443–469; U. of Penn., Gerard, Haverford, Lehigh and Bryn Mawr—Sept. 1910, pp. 182–212; Brown, Bowdoin, Trinity and Wesleyan—Feb. 1911, pp. 145–166; Dartmouth, Williams and Amherst—Dec. 1910, pp. 424–442; Southern Colleges—July 1911, pp. 57–84; Union, Hamilton, Hobart, Syracuse and Cornell—Dec. 1911, pp. 549–573; Vassar, Wellesley and Smith—May 1912, pp. 513–537.

The Work of William Appleton Potter; Sept. 1909, pp. 176–196.

A Question of Public Architecture—The Education Building at Albany; Dec. 1909, pp. 389–392.

Two Bridges in Berlin; March 1910, pp. 234–240.

The Work of N. Le Brun and Sons; May 1910, pp. 365–381.

The Works of Cram, Goodhue and Ferguson; Jan. 1911, pp. 1–112.

Fortunate Treatment of a Group of Institutional Buildings; Aug. 1911, pp. 137–150.

The Building of Pittsburgh; Sept. 1911, pp. 205–282.

New New York Houses; Nov. 1911, pp. 451–474.

The People's Savings Bank, Cedar Rapids, Iowa, Louis H. Sullivan, architect; Jan. 1912, pp. 45–56.

A Modern Publishing House; March 1912, pp. 275–286.

An Architectural Pioneer—Frank Lloyd Wright; April 1912, pp. 427–444.

The Architecture of Mexico; Sept. 1912, pp. 215–229; Nov. 1912, pp. 405–422.

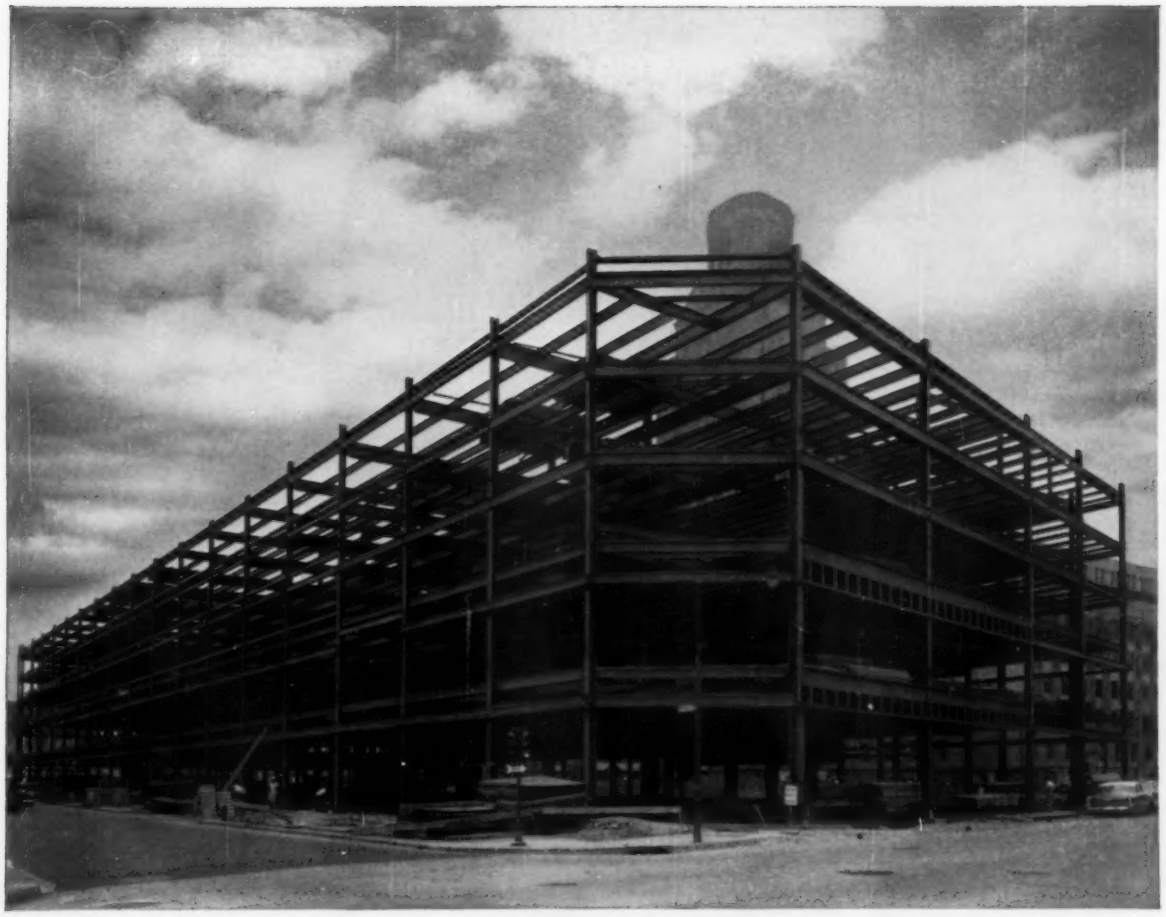
Recent American Country Houses, An Introduction; Oct. 1912, pp. 271–274.

The Towers of Manhattan and notes on the Woolworth Building; Feb. 1913, pp. 98–122.

A New Departure in "Big Business"; June 1914; pp. 505–507.

The New York Court House and its Site; July 1914, pp. 1–11.

An Oasis in the Bronx (posthumous); Feb. 1917, pp. 177–182.



3500 tons of steel erected in less than 5 weeks

This is the corner of Fifth and Federal Streets in Camden, N. J. Some weeks before this photograph was taken you would have had an unobstructed view of City Hall from this spot. Then, on July 11, 1955, Bethlehem erection crews moved in. Using three 50-ton cranes and one 60-ton crane, all with 100-ft booms, they quickly placed the steel for the five-story framework shown here, averaging well over 700 tons per working day. They completed erection of the 3500-ton structure on August 11—in less than five weeks!



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WASHINGTON REPORT

WHITE HOUSE CONFERENCE

(Continued from page 26)

Legal restrictions on bonding powers of communities require re-examination, the report stated; and it reaffirmed belief in the property tax as the base for local school revenue though its re-appraisal was advocated. Report VI, "How Can We Obtain Continuing Public Interest in Education?", wound up by recommending organized, planned public relations for schools, after spelling out detailed means to this end including continuing the Conference idea; but opinion was divided on raising the U. S. Office of Education to Cabinet status.

Report III, "What Are Our School Building Needs?", resulted from discussions after ex-Governor Lane of Maryland, addressing the Conference, had recognized the qualitative as well as quantitative aspects of the question, had finally given the first public endorsement of the surveys of needs which have been conducted by the Office of Education, had expressed fear that the whopping estimate of classroom requirements might "have a background of desire or budgetary consideration," and warned conferees to ignore financing, since that subject was coming up separately.

In Report III the participants did gently kick over the traces. Recognizing that building design and construction are inseparable from cost considerations, this Report's authors got only seven lines written before they had to say: "No state represented has a demonstrated financial incapacity to build the schools it will need during the next 5 years." Bonding capacity, tax values, resistance to taxation, tax exemptions, dependence on property tax, etc., figured largely among 17 obstacles to meeting needs. Only two or three states, the Report says, can actually meet their needs in the near future; some may need financial assistance.

Early in the Conference prefabrication raised the apprehensions of labor and certain manufacturers. During all four days one prefabricator new to the school field promoted his product vigorously from an upper-floor hotel suite — the only materials manufacturer we heard of who did so. The subject wasn't very active at the round tables, however; several laymen let us know they didn't think much of the results prefabrication has so far achieved. Yet a school superintendent who participated told us he had to visit a prefab school on the way back to Texas, due to pressure from home. Prefabrication was not mentioned in Report III.

Several paragraphs, we learned gleefully, went into Report III in almost the exact words of the lower-level statement from the table at which Henry Wright was chairman. A strong case was made for establishment by each state of "Minimum building standards for health and safety *in terms of goals to be achieved* rather than *the means of attaining them*" (italics as in the Report). Among other recommendations were basic facilities for elementary and secondary schools — a list not much different from the requirements of most state school agencies; and the Report terminated with a minority suggestion for "experimentation in projects for multiplying the teacher's services which might reflect on the traditional classroom form."

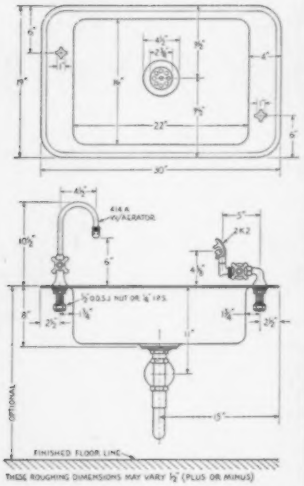
Here at least was a Report which recognized, (1) that research findings, though distasteful, might be valid; (2) that the future might bring change, and (3) that there's something amiss in the relation between financial capacity and willingness to provide school buildings.

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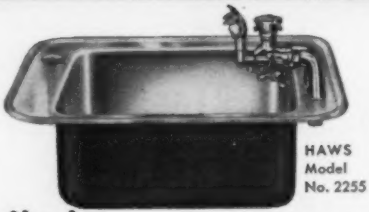


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Milcor Wall Units are fabricated to meet individual job details. They are available as factory-welded assemblies or knocked-down for assembly on the job. You can specify width, height, and depth . . . gauge of steel (either Ti-Co galvanized or regular) . . . and front-panel construction.

A sales engineer from our nearest branch office can help you put Milcor know-how to work on your next job. Write for Catalog No. 102, or consult Sweet's.

MILCOR® Wall Units



Milcor Wall Units were specified for the new Providence Hospital, Washington, D. C.
Architects: Faulkner, Kingsbury & Stenhouse Washington, D. C.
General Contractor: Charles H. Tompkins Company, Washington, D. C.
Metal Trim Agent: James A. Cassidy Co. Inc. Washington, D. C.



Milcor Type "A" standard wall unit consists of window and converter enclosure panels only.



Milcor Type "B" standard wall unit, includes metal wainscot panels in addition to window stool, convector enclosure panels and head and jamb sections for the window openings.

INLAND STEEL PRODUCTS COMPANY

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OFFICES IN: BALTIMORE • BUFFALO • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DETROIT
KANSAS CITY • LOS ANGELES • MILWAUKEE • MINNEAPOLIS • NEW YORK AND ST. LOUIS.

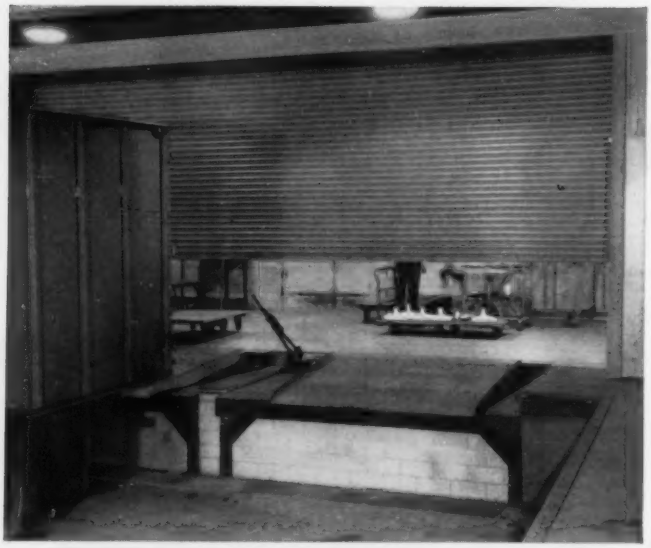
T-104

Newest John Wanamaker Store



Architects: WALLACE and WARNER
Philadelphia, Pa.

Cuts Cost of "In-And-Out Handling"*



with

Kinnear Steel Rolling Doors

*"In-and-out handling" is involved wherever merchandise or materials must be *moved through doorways*—in shipping, receiving, warehousing, processing, or production scheduling.

It takes a *continuous* bite out of profits if door equipment isn't of highest efficiency.

That's why, along with such time-savers as loading platforms that adjust quickly to any level, this newest John Wanamaker store features Kinnear Steel Rolling Doors.

You see one of these doors in action above. Note that it opens and closes *straight up and down.* Merchandise stacked door-high *or higher, only an inch or two inside or outside the door,* won't hamper its operation.

The door coils compactly *above* the opening, out of the way and safe from damage. Wind can't slam it shut or bang it back and forth.

When closed, Kinnear Rolling Doors give all-steel protection against wind, fire, weather, theft, and vandalism.

Heavy galvanizing (1.25 ounces of pure zinc per square foot, ASTM standards) gives the rugged steel curtain extra resistance to corrosion.

In addition, a special Kinnear Paint Bond makes field-applied finishes cover better and adhere longer.

In industrial and commercial applications alike Kinnear Rolling Doors offer "more, for less, for longer".

Built any size, for old or new construction, with motor, manual, or mechanical operation. *Write for information on any door need.*

The KINNEAR Manufacturing Company

KINNEAR ROLLING DOORS — SAVING WAYS IN DOORWAYS

FACTORIES:
1860-80 Fields Avenue, Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.
Offices and Agents in All Principal Cities

THE RECORD REPORTS

ON THE CALENDAR

January

16–17 Public Works Conference, sponsored by the American Institute of Architects — The Octagon, Washington, D. C.

20–21 Annual meeting, Virginia Chapter, American Institute of Architects — Jefferson Hotel, Richmond

22–26 Annual convention and exposition, National Association of Home Builders — Chicago Coliseum, Conrad Hilton and Sherman Hotels, Chicago

23–25 Annual meeting, American Society of Heating and Air Conditioning Engineers — Sheraton-Gibson Hotel, Cincinnati

23–25 Seventh Plant Maintenance and Engineering Conference, a project of Clapp & Poliak, Inc., New York exposition management firm — Convention Hall, Philadelphia

26–27 Second annual general assembly of Engineers Joint Council — Hotel Statler, New York City

30ff Winter General Meeting, American Institute of Electrical Engineers; until Feb. 3 — Hotel Statler, New York City

February

13–16 Annual convention, Associated General Contractors of America, Inc. — Waldorf Astoria Hotel, New York City

13–17 Hospital Planning Institute, sponsored by the American Hospital Association —Sheraton-Park Hotel, Washington, D. C.

13–17 Dallas convention, American Society of Civil Engineers — Hotel Baker, Dallas

13–18 Symposium on winter concreting, sponsored by the Danish National Institute of Building Research — Copenhagen, Denmark. Further details: The Organizing Secretary, RILEM Symposium 1956, % Danish National Institute of Building Research, 20 Borgergade, Copenhagen K, Denmark.

18–23 Annual convention, American Association of School Administrators — Atlantic City, N. J.

March

12–16 Twelfth Annual Conference, National Association of Corrosion

(Continued on page 294)



New lighting beauty...plus

beautifully simple to install

New "Magic Frame" Troffers offer unprecedented beauty *plus* a complete series of design improvements that provide unequalled advantages in installation and performance . . . all at a cost that is completely competitive. Not a bolt, screw or light leak need mar the clean, smooth lines of your troffer lighting.

- Available with all types of flat and curved glass, metal and plastic louvers—*including ½" plastic cube louver.* Doors are completely interchangeable.
- Exact 12" opening insures attractive appearance in a variety of pattern arrangements—continuous or individual mounting.
- "Magic Frame" doors lock securely, open on two concealed hinges. Remove by merely lifting and shifting—no screws to loosen, remove or lose.

Write for new Data and Specification Catalog showing the most complete variety of troffer lighting fixtures now available.



A screwdriver is all you need to install "Magic Frame" Troffers! Combination Reflector Plate-Wireway Cover being raised into 8-ft. fixture, in photo, contains all electrical components. For minor adjustments, cover hangs on jack chain by just loosening two captive nuts . . . or the cover can be removed for major adjustments. Once chassis is in ceiling it never has to be touched!

Exclusive "Adjusto-Hangers" and "Speedy Latches" permit one man installation of 4-ft. units. Insure perfect alignment and eliminate loose screws and bolts. No tools needed except screwdriver.

Electro Silv-A-King Corporation

1535 S. PAULINA ST., CHICAGO 8, ILLINOIS • SPRUCE & WATER STS., READING, PENNSYLVANIA

DESIGNERS AND MANUFACTURERS OF THE FINEST IN LIGHTING



ROTO-GLO®
quiet switch



Despard Type
15 Amp., 120
Volts AC, 277
Volts AC.



Strap Type
15 Amp., 120
Volts AC.

Whisper quiet ROTO-GLO switches glow in the dark, too. No electric current required. A few seconds exposure to any light source keeps a knob glowing all night. Best of all, ROTO-GLO costs no more than ordinary switches.

By specifying ROTO-GLO switches in your plans you are getting the latest architectural advancements in electrical switches. Their smart, clean lines are a real style asset to modern building.

The new roto-action switch mechanism and non-oxidizing silver alloy contacts are totally enclosed in a plastic body, assuring longer switch life and improved performance.

ROTO-GLO switches can be used to full current rating on incandescent and fluorescent lighting loads—and on motors to 80% of current rating. Approved by Underwriters' Laboratories, Inc.

In your present and future plans specify ROTO-GLO . . . the most modern of all switches.

Send for your free ROTO-GLO quiet switch... today!

This is a special opportunity for you to see and try a new ROTO-GLO switch in your home without cost or obligation. Address your request for a Despard or Strap Type on business stationery to Pass & Seymour, Inc., Dept. AR-10, Syracuse 9, N. Y.

P&S PASS & SEYMOUR, INC.
SYRACUSE 9, NEW YORK
71 Murray St., New York 7, N. Y. 1229 W. Washington Blvd., Chicago 7, Ill.
In Canada: Renfrew Elec. & Refrig. Co., Ltd., Renfrew, Ontario

THE RECORD REPORTS

(Continued from page 292)

Engineers — Hotel Statler, New York City

14–16 The 42nd annual convention, Michigan Society of Architects — Hotel Statler, Detroit

21–23 The 18th annual American Power Conference, sponsored by Illinois Institute of Technology in cooperation with 13 universities and nine national and regional technical societies — Hotel Sherman, Chicago

OFFICE NOTES

Offices Opened

• John L. Codomo, Architect, has announced the opening of his offices at R.F.D., Box 248, Lloyd Road, Matawan, N. J.

• Foss and Company, Architects, have announced the opening of a branch office, formerly at Bemidji, Minn., at 922 Fourth St. W., Willmar, Minn. The office will be under the direction of Burton Gewalt.

Firm Changes

• Mario J. Ciampi, A.I.A., announces the association of Allyn C. Martin, A.I.A., with him in a firm to be known as Mario J. Ciampi, Architect, Allyn C. Martin, Associate Architect.

• Daniel, Mann, Johnson & Mendenhall, Architects & Engineers, have appointed as associates in the firm Shuji Magota, T. K. Kutay, Jack C. Handley, Walter W. Beeson, Alfred W. Day, Marvin J. Kudroff, Robert J. Sully, A. H. Matusek and Edward L. Frumhoff. Offices are at 4201 Sunset Blvd., Los Angeles 29, Cal.

• Howard T. Fisher & Associates Pruyn and Bryant Inc. is the new architectural firm established by the merger of Howard T. Fisher & Associates with the firm of Bryant and Walchli. Members of the new firm include Howard T. Fisher as chairman of the board, John A. Pruyn as president, Daniel C. Bryant as executive vice president and Edward J. Walchli as director of design. Offices are at 322 W. Washington St., Chicago. The firm of Howard T. Fisher & Associates will continues its practice at 270 Park Ave., New York.

• Lawrence Halprin, Landscape Architect, has announced that Jean Walton, Donald Ray Carter and Satoru Nishita have been made associates in the firm.

(Continued on page 296)

from coast-to-coast



Since its start in 1906, Kawneer has developed a nationwide organization to better service the architectural profession and the construction industry as a whole. From a small plant in Niles, Michigan, the company has grown to include 12 factories and warehouses in key distribution points to provide immediate service. A sales organization of 110 men, trained to serve the architect and contractor, covers the U. S., Canada and Latin America. A dealer organization consisting of more than 1200 factory-trained dealers offers its skills and stocks of Kawneer materials to assure proper completion of jobs. With these facilities Kawneer assures your construction team quality materials, manufacture, design and application.

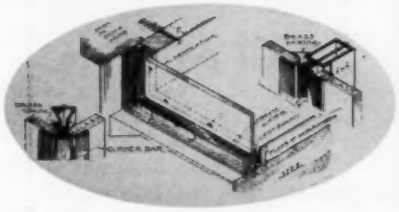
HOW YOU BENEFIT TODAY FROM A 50 YEAR OLD PATENT

Architect-Inventor

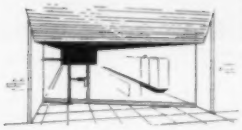


Francis J. Plym, founder of the Kawneer Company in 1906, was a practicing architect who, as a result of his studies, provided the construction industry with materials that made possible the glazing of large lites of glass. This invention was a boon to retailers who could finally display merchandise effectively to shoppers. It revolutionized store front design. As a result of this, Mr. Plym is recognized as the pioneer of store front modernization and helped to make possible the modern, appealing store fronts we have today.

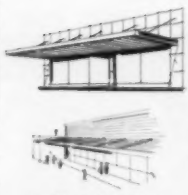
The impact of his invention led to the demand for more material and assemblies. Over the years, Mr. Plym amassed a total of 30 patents, all of which have helped to contribute to the needs of the architect for individuality of design with stock materials.



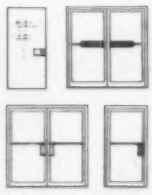
Illustrated above is a reproduction of the patent application drawing submitted by Francis J. Plym for his unique new resilient sash that revolutionized window display techniques and merchandising methods.



Sash, trim and facing material



Sun Control products



Doors and entrances



Windows and metal wall

companion products

Although the reputation and growth of Kawneer results from its design and manufacture of store front materials, other building products have been manufactured. Kawneer in the 1930's was the largest manufacturer of aluminum windows for the home and commercial buildings until production was curtailed because of World War II. Since the war, Kawneer has branched out to include Canopies, Louvers, Flush Doors with honey-comb cores, Doors and Entrances, Spandrels, Mullions, Facing Materials and others.

and now—new Kawneer products to serve the architect

Kawneer maintains an extensive Research and Development program to contribute new products to the construction industry. Very soon, Kawneer will announce a number of new products in commemoration of its 50th anniversary. Look for the announcement in the coming issues of this magazine.

50TH ANNIVERSARY

Kawneer

General Offices NILES, MICHIGAN

ARCHITECTURAL PRODUCTS DIVISION

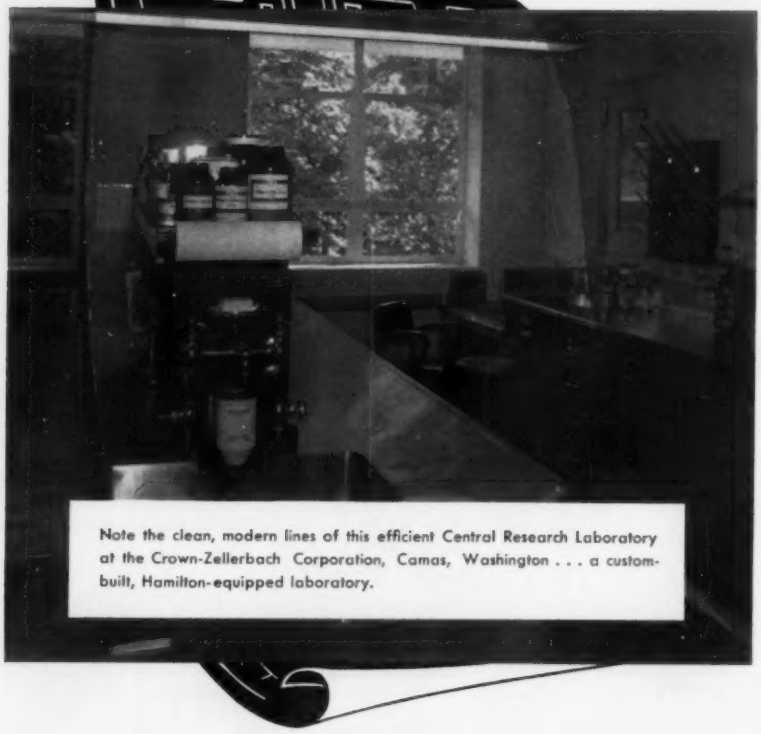
1906–1956

Foremost fabricators of aluminum and plastics for the construction, aircraft and appliance industries.

Specify the equipment that's in demand . . .

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Hamilton



Note the clean, modern lines of this efficient Central Research Laboratory at the Crown-Zellerbach Corporation, Camas, Washington . . . a custom-built, Hamilton-equipped laboratory.

When you create Hamilton-equipped laboratories for industry, you can plan confidently. For this outstanding equipment has a remarkable and tested popularity—meeting the most exacting and varied requirements everywhere.

Hamilton engineers have helped plan standard and custom-built laboratories for every type of industrial and educational use. Work-gained experience and constant research enable Hamilton to build laboratory equipment to meet current and anticipated needs of industry. Isn't it only sensible to make use of this in-the-field experience when planning a laboratory project?

For more information and/or consultation with Hamilton engineers, write today—without obligation

Available, too, are Sectional Steel Units so versatile as to fit into practically any laboratory, without custom costs.

Hamilton LABORATORY EQUIPMENT

HAMILTON MANUFACTURING COMPANY • Two Rivers, Wisconsin

THE RECORD REPORTS

(Continued from page 294)

It has also been announced that the firm has new offices at 737 Beach St., San Francisco 9, Cal.

• Morrow & Cadman, Architects, has been dissolved as a firm, and has been succeeded by Elton J. Morrow, A.I.A., at 45 N. Lake Ave. (at Washington), Albany, N. Y.

• Skidmore, Owings and Merrill have announced that Edward James Mathews of New York and James W. Hammond and Walter A. Netsch Jr. of Chicago have been named general partners.

New Addresses

Amman and Whitney, Consulting Engineers, and O. H. Amman, Consulting Engineer, 111 Eighth Ave., Port Authority Bldg., Room 800, New York 11, N. Y.

Gerald H. Beuse, Architect & Associates, 8645 S. Greenleaf Ave., Whittier, Cal.

Campbell & Wong, 737 Beach St., San Francisco, Cal.

Cowell and Neuhaus, Architects, Suite 407, Old National Bldg., 5619 Fannin St., Houston 4, Texas

Crozier & Sirine, Architects, 88 Purchase St., Rye, N. Y.

Ralph M. Goldman, Architect, 3130 Bathurst St., Toronto 10, Ont.

John P. Legnos Associates, Engineers, 30 Gillett St., Hartford, Conn.

William R. Watt & Associates, Consulting Engineers, 1290 N.E. 162nd St., N. Miami Beach, Fla.

Royal Barry Wills and associates Merton S. Barrows and Robert E. Minot, Architects, 82 Charles St., Boston 14, Mass.

CORRECTIONS

The architects listed in the RECORD's story on the Tulsa Civic Center Project (Dec. 1955, p. 12) as members of Tulsa's Architectural League were actually members of the League's Board of Design. The League was formed by about 35 local architects "to contribute to the community's development." Robert Lawton Jones was the board's project manager for the Civic Center.

Credit for the second honor award at the A.I.A. Central States District Meeting (AR, Nov. 1955, p. 16) should have gone to the firm of Russell Mullgardt Schwarz Van Hoefen.

(More News on page 298)



FORT BROWN MEMORIAL CENTER, Brownsville, Texas, million-dollar monument to lasting friendship between the U. S. and Mexico. Designed by Wiltshire & Fisher, Dallas, winners of A.I.A. competition.

Consulting Engineer: Landauer & Shafer, Dallas. General Contractor: Marchant Bros. & Balay, Mercedes, Tex. Air Conditioning Contractor: John H. & Earl Hunter, Brownsville, Tex.

IT'S AIRTEMP AIR CONDITIONING IN PRIZE-WINNING FORT BROWN *memorial center*

HERE'S MORE EVIDENCE OF TREND TO AIRTEMP AMONG LEADING U. S. ARCHITECTS!

Airtemp air conditioning is *famous* for trouble-free performance—just the smooth-running result you'd expect from 21 years of advanced engineering by Chrysler. And when you install Airtemp, you're giving your clients the best assurance of low operating costs—year after year.

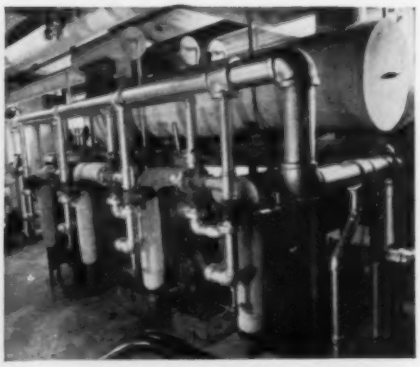
Whether your job is large or small, in the complete Airtemp line of equipment for all systems of modern air conditioning, you will find the *exactly right* equipment for every requirement.

When you air condition with Airtemp you can make *doubly* sure that your installations are right in every detail by utilizing the advisory services of *top engineers* of Airtemp Construction Corporation. And to safeguard your installations through the years ahead, there are Airtemp-trained *personnel* and service *facilities* right on the spot in every major community.

So remember, next time you're planning commerical or industrial air conditioning . . . specify AIRTEMP. Get the best equipment for the job *plus* the complete air conditioning service that will relieve you of many problems.

AIRTEMP BUILDS AIR CONDITIONING TO FIT ANY REQUIREMENT!

For full information on what Airtemp offers you, write to: Airtemp Construction Corporation, Dayton 1, Ohio



250 TONS OF COOLING! Two Airtemp Liquid Chilling systems provide water for cooling cycle in air conditioning of Fort Brown Memorial Center. Heart of each unit is the Airtemp Variable-Capacity Radial Compressor with exclusive design which saves space, reduces compressor weight. Quiet operation is due to perfect balance and reduced vibration.

Airtemp
CONSTRUCTION CORPORATION
SUBSIDIARY OF CHRYSLER CORP.

AIR CONDITIONING • HEATING FOR HOMES, BUSINESS, INDUSTRY

(Continued from page 296)

ARCHITECTURAL DESIGN, July 1955 (Great Britain), carried a special report on architectural education as it is conducted in Britain and in the United States, revealing thereby some of the similiarities and dissimilarities of the two approaches. The British system differs fundamentally from the American system, of course, since standards for education and for admission to practice are both under the direction of the Royal Institute of British Architects.

The British system was "reassessed" by F. E. Towndrow, a former editor of the magazine and presently Dean of the Faculty of Architecture and Building at the New South Wales University of Technology in Australia. Mr. Towndrow asked that schools recognize the fact that only about 10 per cent of architects graduating from British schools go into practice on their own account — the other 90 per cent find positions with the government, business firms and contractors, or use their training in writing, journalism, building research, building materials publicity or teaching.

Mr. Towndrow also suggested a more practical training in construction and design ("In many schools the projects are too large and too romantic") and recommended a more thorough study of structure: "We ought to train certain of our fraternity up to the level of structural engineers and in fact beyond it."

Architectural education in the United States was covered by Christopher Arnold and Peter Floyd, two young British architects who had spent two years in this country. They remarked on the diversity of curricula and quality in American schools, attributing this diversity to the independence of each school from the others and to the lack of a traditional system of training. They also observed "a general lack of long-range continuity of academic policy" in most U. S. schools. They did report, however, that U. S. schools "make much better use of the complete academic facilities of the university" than is customary among English schools.

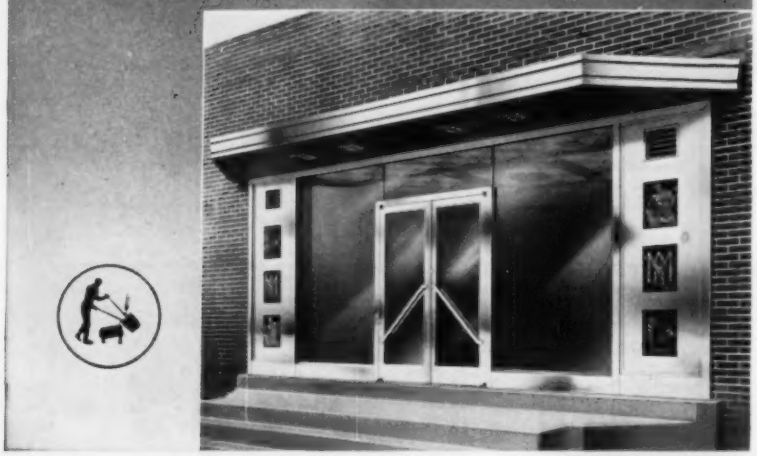
As to the attitudes of the student, they commented, "he will be skillful in practical and administrative matters and take them very seriously and conscientiously; he will be hesitant and naive in theoretical and philosophical affairs and tend to despise them." This attitude, which they feel is not solely the property of the student, is reflected in the interest in structure evident at most U. S. schools.

The authors noted also (as has almost every British visitor since at least the time of Dickens) the eagerness with which Americans listen to foreign lecturers, and felt that "this humility speaks well for the future of American architecture. The able school-trained architect whose technical brilliance is allied to a broader inquiring outlook is probably better equipped to enhance the profession than the product of any other system."

A third section of the report was a survey of the heads of eight "leading" schools of architecture. Most of the questions, however, were directed pretty specifically to British problems.

(Continued on page 300)

INCREASED ENGINEERING and PRODUCTIVE CAPACITY helps us serve you more effectively



MAIN ENTRANCE to the new home of The Michaels Art Bronze Co., Inc., located in Erlanger, Kentucky, eight miles southwest of Cincinnati, Ohio. This modern structure of approximately 80,000 square feet houses the offices, engineering and manufacturing departments. A second building of 13,000 square feet contains the foundry and pattern shop. These new facilities enable Michaels to coordinate activities, streamline manufacturing operations, and develop new products.

Michaels high-quality metal building products are well-known among architects and builders everywhere, and have become an important part of many of the nation's most prominent structures.

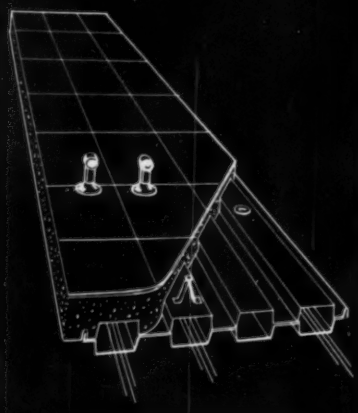
Send us a set of plans for your next project. Here you'll find prices that are right; the very highest quality, and a thoroughly reliable source of supply for everything you need in stainless steel, aluminum or bronze.

THE MICHAELS ART BRONZE CO., INC.
P. O. Box 668-R, Covington, Kentucky
Experts in metal fabrications since 1870

MICHAELS PRODUCTS

- Bank Screens and Partitions
- Welded Doors
- Store Fronts (special)
- Building Skins
- Spandrels
- Louvers
- Windows (special)
- Revolving Doors
- Stair Railings
- Church Work (special)
- Candelabras
- Name Plates
- Letters
- Check Desks
- Lamp Standards
- Marquees
- Tablets and Signs
- MI-CO Parking Meters
- Museum Trophy Cases
- Bronze Inurnment Urns
- Bronze Vases
- Misc. Metal Work

Literature on any or all Michaels products will be sent on request.



Celluflor raceways, spaced on 6-inch centers, carry electrification and other hospital services. In administrative areas, outlets can be placed at practically any point on the floor (above). In wards and rooms, cells provide services to wall outlets (below).

Now—meet the special requirements of hospitals with Milcor Celluflor

The clean, dry raceways of Celluflor carry a variety of utilities

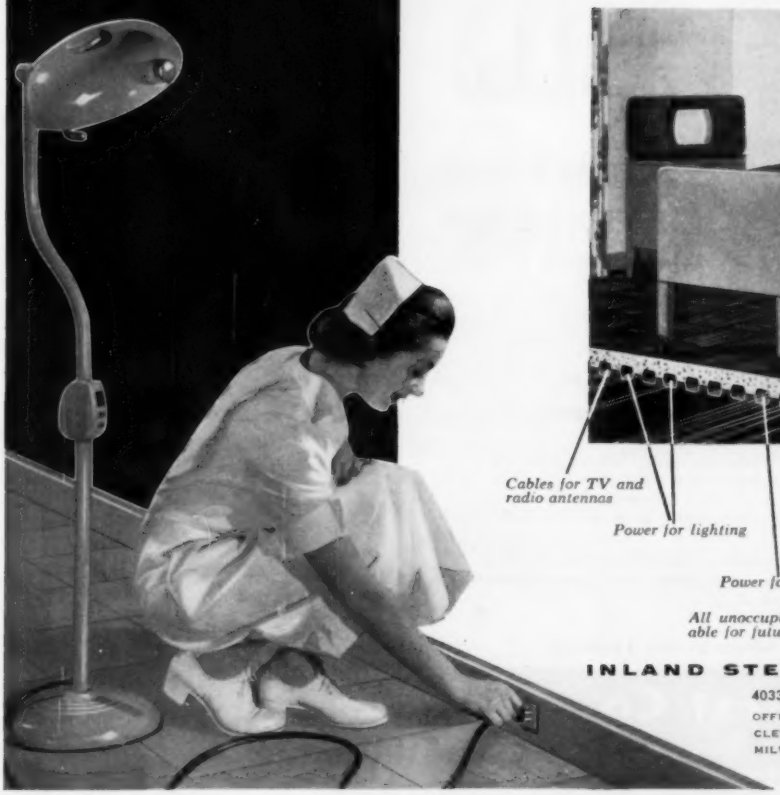
For example, Celluflor cells carry electric wires for bed lights, heat lamps, and wall receptacles. The cells also carry cables for television and radio, nurse signals, and telephone jacks. Occasionally, the cells channel oxygen (through copper tubes) to each bed location.

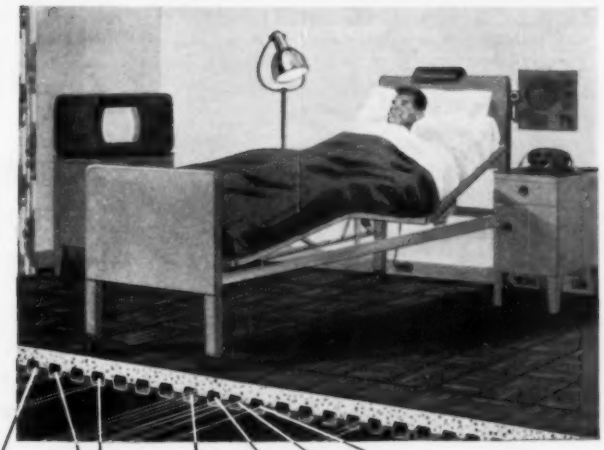
Milcor Celluflor also provides for the unforeseen electrical needs of tomorrow, making it easy to relocate technical facilities in former ward areas or to extend greater services to other locations.

During the construction of hospital additions, the rapid, quiet, clean erection of Milcor Celluflor is important to the comfort of patients.

Catalog No. 270, available upon request, suggests how the variety of Milcor Celluflor types enables you to apply this modern idea in floor construction to specialized conditions in many fields, or consult Sweet's.

MILCOR® Celluflor





INLAND STEEL PRODUCTS COMPANY

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OFFICES IN: BALTIMORE • BUFFALO • CHICAGO • CINCINNATI CLEVELAND • DALLAS • DETROIT • KANSAS CITY • LOS ANGELES MILWAUKEE • MINNEAPOLIS • NEW YORK AND ST. LOUIS.

M-178

THE RECORD REPORTS

(Continued from page 298)

BOUW, October 29, 1955 (The Netherlands), reported a project for a children's vacation camp designed by architect J. J. P. Oud for a site near Arnhem. The buildings planned will include 10 "children's pavilions," each housing 12 children.

The main building (shown at left in the plan and in photo 2) will contain facilities for recreation, cooking and sleeping quarters. A sports building, which will be equipped with gymnastic facilities, will be at the opposite end of the mall from the main building. The boilerhouse will be a small round building situated in the center of the group, and the chapel, not shown on the plot plan, will be located just below the main building (see cut 3).

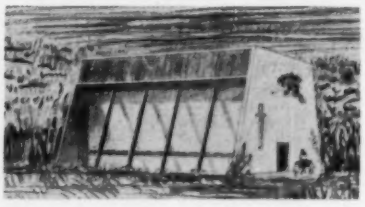
The Spanish painter Joan Miro will do the murals for the project (note the architect's rendering of the main building.)



1



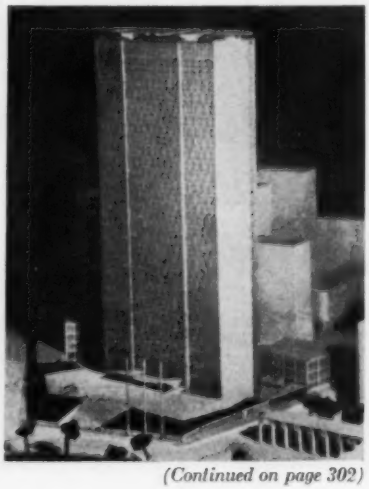
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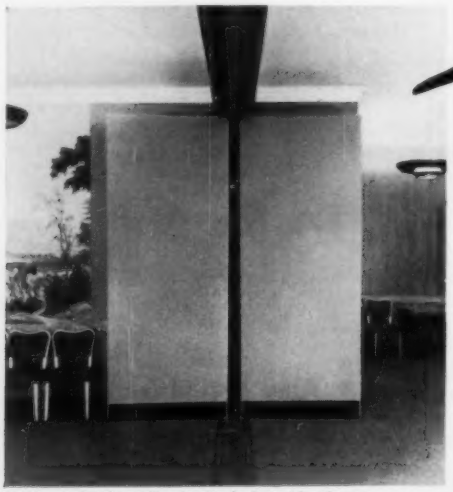
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THE ARCHITECTS' JOURNAL, October 20, 1955 (Great Britain), published this photograph of the Pirelli building designed by an Italian group of which two members were engineer Pier Luigi Nervi and architect Gio Ponti. It will be built in Milan.

The building will be supported by four bifurcated columns, which will fork at about ground level and taper gradually as they rise. This structural solution, the *Journal* commented, "will surely give the Pirelli building a standing among the commercial masterpieces of the mid-Century equal to that of Mies van der Rohe's entirely conventional Seagram building in New York."



(Continued on page 302)



Fairhurst double wall units stacked at side of room.



This Fairhurst Folding Wall divides Hotel Statler meeting room for double use, Buffalo, N. Y. Noel Simon, architect.

Fairhurst T.M. Reg.
UNITFOLD®
DOUBLE WALLS

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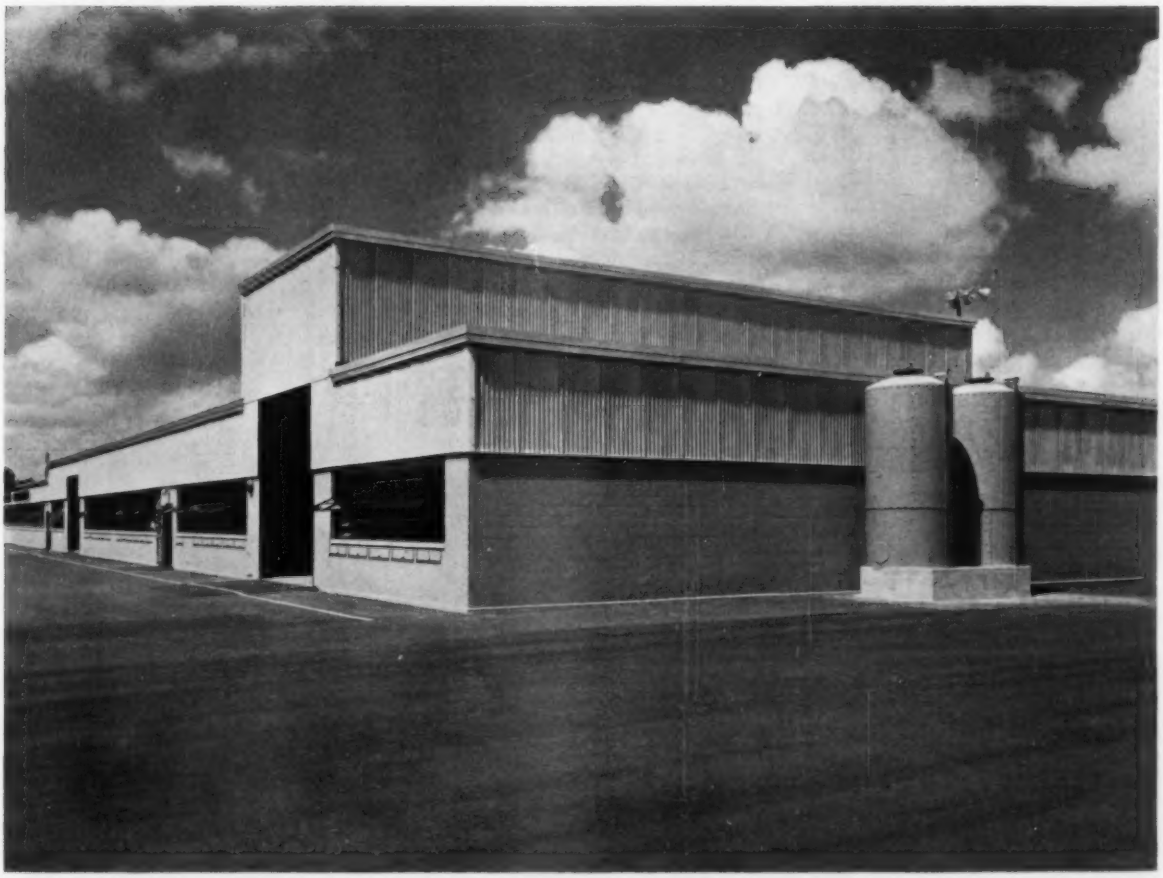
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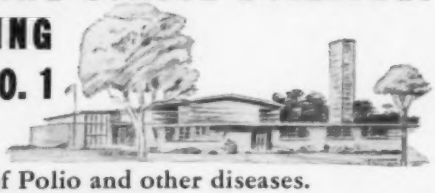
THE RECORD REPORTS

(Continued from page 300)

THE ARCHITECTURAL REVIEW, September 1955 (Great Britain), studied the coffee houses of London, an old building type which reappeared in the city about two years ago (it is just now beginning to be seen around New York). Stephen Gardiner, writing one of the two pieces on the subject, finds four categories of the "espresso style"—the Italian original, "flashy, neon-lit, streamlined"; Authentic English, "severe, sensible, 'tasteful' "; Authentic English in decay, "ideas used for idea's sake" (cf., The Coffee House, 1, with water falling over plastic sheets); and the Theatrical style. His own favorite, he says, is Roy's Bar (2), which is "witty, inventive and *not* mass produced."

Marghanita Laski fears that the coffee house is not here to stay: "Coffee for tea, somewhere to sit down with decent interesting décor, this doesn't add up to a new way of life."

WHEN CONSIDERING SCHOOL BUILDINGS MAKE THE WASHING FACILITIES THE NO. 1 CONSIDERATION



- Help prevent spread of Polio and other diseases.
- Save water with Bradley Washfountains.



Washroom adjoining cafeteria, Lake High School, Salisbury, Maryland. Architect, Edwin Wilson Booth. Bradley 54-in. Washfountains. Walls, pearl gray; Base, gloss black; Floor, sand buff; Textone Pavers.

BRADLEY *Washfountains*

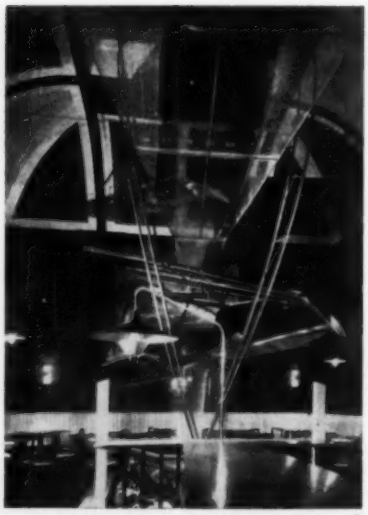
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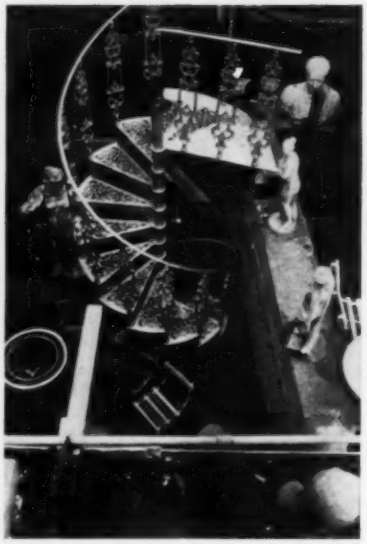


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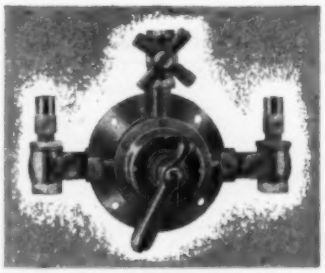
L'ARCHITECTURE FRANÇAISE, Nos. 157–158 (France), in a special issue on "Salles de Spectacles," published architect Jacques Bosson's project for a traveling theater. Designed to seat 1100 spectators, the theater would be completely demountable, could be set up in six hours. The frame would be constructed of an aluminum alloy, the seats and covering of a plastic material.



(More news on page 304)

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THE RECORD REPORTS

(Continued from page 302)

NAME 'BEST PLACE TO WORK' IN ANNUAL AWARDS PROGRAM

From 110 entries, the magazine *Management Methods* deemed nine offices worthy of the title "Best Place to Work" in its second annual competition. The program was initiated to support the magazine's belief that "the environment in which men and machines operate has a direct and measurable effect on their output."



Exterior of Northwestern Mutual Fire Association Building in Los Angeles has aluminum fins which can be turned for sun control. In interior, space is divided "by function rather than by partition"; Richard Neutra was the architect



Of the nine categories set up by the magazine, awards in two went to architects — to Richard Neutra for the Best Integrated Office for a Small Firm and to George Nelson for the Best Reception Room (see cuts). Members of the jury were Olga Gueft, editor of *Interiors*, and J. Gordon Carr, architect.

Subscription and classified ad agency for The New York Times *in Yonkers, N. Y., doubles as a reference library of back issues; architect George Nelson, designer*



(More news on page 306)

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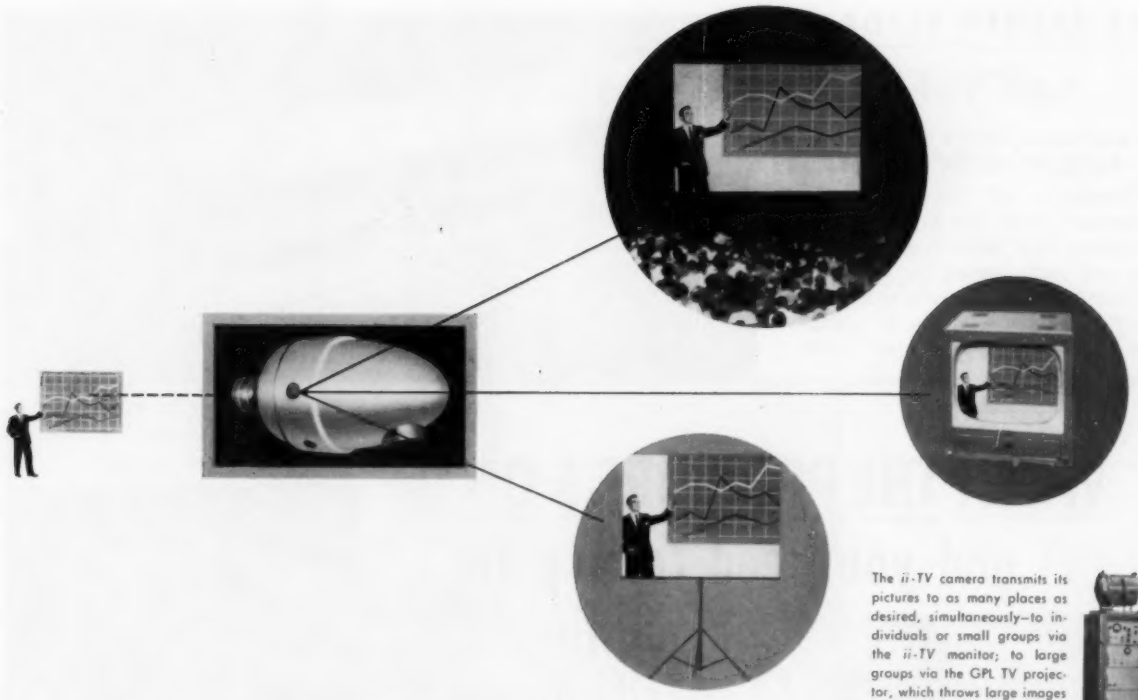
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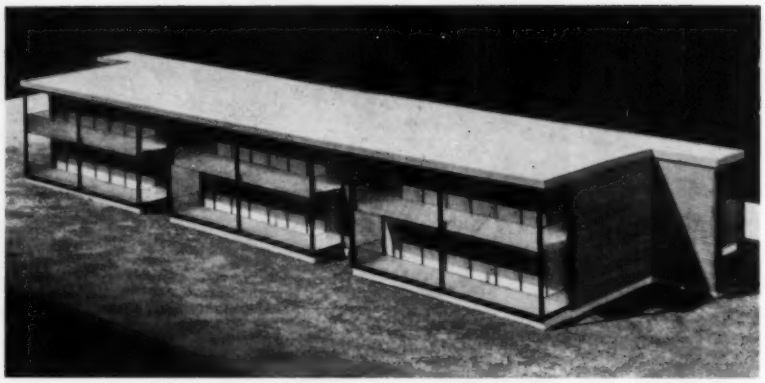
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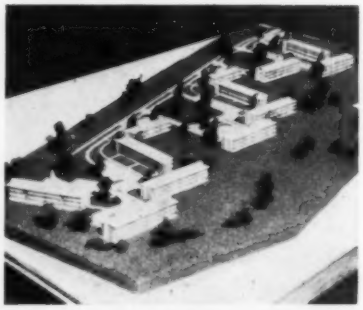
(Continued from page 304)

APARTMENT UNITS PLANNED AS FACULTY-STAFF HOUSING

Viewing its old "Shawneetown," a temporary World War II housing development, as a "liability, not only as a fire and traffic hazard, but from the esthetic and maintenance standpoint," the University of Kentucky, at Lexington, plans a new "Shawneetown" for its faculty and staff.



Above: model of the Type 1 unit, containing six two-bedroom apartments. Below: the site model



Two types of buildings are planned. Type 1 will be a two-story unit containing six two-bedroom apartments; three of these units are planned. Type 2 will be a three-story building containing eight efficiency units on the third floor and four one-bedroom apartments on each of the other floors; there will be 10 of these buildings.

In the one- and two-bedroom apartments, some flexibility of space arrangements is afforded by folding doors between bedroom and living area. Community laundry rooms are located on each floor.

The apartments will be entered from open corridors. On the other side of the building, each apartment will have its own balcony, oriented for climate control and a view of the University farmlands. Another reason for choosing this scheme was the resultant economy in providing cross-ventilation.

The 24-acre site will furnish parking facilities and child and adult recreational areas. The total cost of the project is estimated at $1,500,000, including site development and fees.

Thomas Page Edwards Associates, of Lexington, are the architects, with Edward D. Dart of Chicago as associate architect. Landscape architects are Scruggs and Hammond of Lexington and Peoria, Ill.

(More news on page 308)

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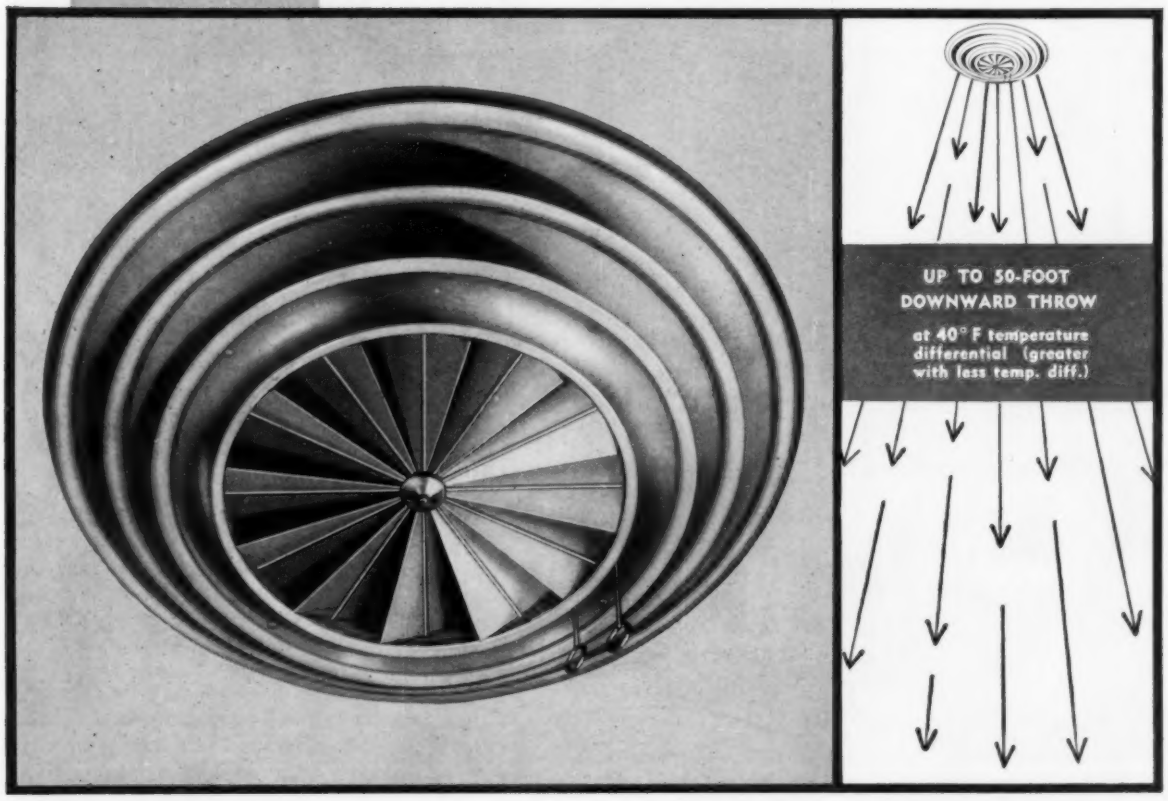
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THE RECORD REPORTS

(Continued from page 306)

MUTUAL BENEFIT ELECTS TO REMAIN IN THE CITY

Before planning its new home office, Mutual Benefit Life Insurance Company carried out a two-year study on the comparative advantages of relocating in the suburbs or building again in Newark and concluded that a downtown location was the best bet. In a statement released by the company, it reported the findings of its research into companies already moved to the suburbs and into its own situation.

Said the statement: "The city of Newark, with its major airport, five railroads, network of modern highways and coordinated bus services, provides the company a central location for the daily flow of visitors who have business problems to discuss. . . . Of no less importance was the concern for the comfort and convenience of men and women now employed in the Home Office. Any relocation would, of necessity, complicate



and add to the time and cost of their transportation, resulting in the ultimate loss of many valuable and experienced people." And, the statement added, "investigations disclosed that the experiences of certain companies which have moved from urban areas bore out the Board's judgment."

Another personnel problem about which the company worried was the difficulty of recruiting new employes; Mutual Benefit Life relies to a large extent on graduating high school classes in Newark for its personnel and "was reluctant to jeopardize a stable and proven labor market."

The possibility of favorable tax rates in the suburbs would probably be temporary, the company decided, since eventually a smaller city would be obliged to raise its taxes to cope with civic problems imposed by an expanded population.

The company also feared the isolation of its executives in a smaller community, and felt that it "could ill afford to risk the loss of its close associations with business and industrial groups and civic and welfare agencies, so essential to an understanding of business conditions and social problems in the complex and competitive life insurance field."

The new building, designed by architects Eggers & Higgins of New York, will have a three-story base topped by a 17-story tower. Basement columns have been "overdesigned" so that when the company requires more space, the lower floors of the building can be expanded.

Mutual Benefit Life has also acquired other sites near Washington Park, where the new office will be built. A large area in back of the new building will provide parking space for employes and clients. On two smaller sites facing the square, the company plans to build two small institutional type buildings for rental. Such a project would eliminate all of the older buildings on the park.



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(*Continued from page 48*)

the funds and guide other aspects of the program. The head of this agency would be entrusted with placing the public works assistance and the plant construction loans in communities proved to have suffered at least nine per cent unemployment for three years. These figures apply to showings by the Bureau of Employment Security of the Department of Labor.

Senator Douglas would safeguard against pirating of industry from already hard hit areas, and would seek to establish the new activity in any specified area as a permanent solution to its employment troubles.

The industrial plant and commercial facility construction loans would carry a 40-year maximum amortization period. Fast tax write-off benefits would be another phase of the proposed law.

SEEKS HIGHER RATES ON COLLEGE HOUSING LOANS

John C. Hazeltine, Commissioner of the Community Facilities Administration, Housing and Home Finance Agency, disclosed that he intends to seek from Congress "a more equitable interest rate" for the college housing program. The present rate of 2¾ per cent on long-term loans (40 to 50 years) in the Commissioner's opinion is illogical and represents "a definite Federal subsidy."

Commissioner Hazeltine seeks a change in the law which would make it possible for a greater proportion of these loans to pass into the hands of private investors. A rate of 3¼ per cent should attract a substantial amount of private investment, he believes. It is considered to be a small differential standing between a direct Federal loan and an offering which would be more attractive to the public.

Assuming a per bed cost of $3000, this interest rate difference amounts to only $10.32 per year, or $1.14 per month on a nine-month basis; 85 cents on a 12-month basis.

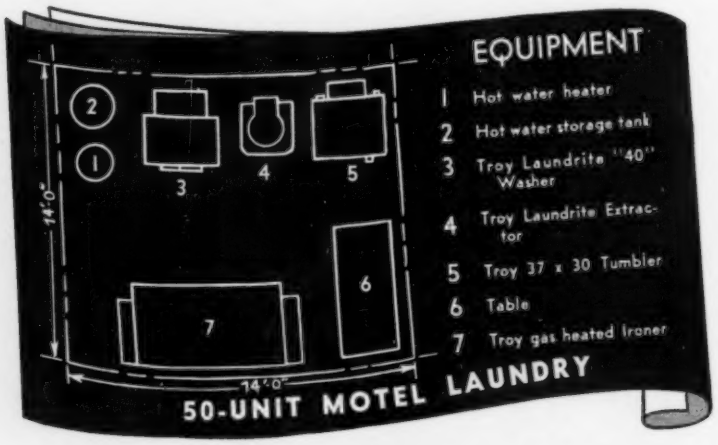
With open reference to Congressional foes who seek to wipe out the Federal assistance to college housing entirely, Commissioner Hazeltine commented: "Although we are all agreed that college housing loans are sound investments in institutions which are central to the very core of our national existence, this valuable program may be lost if it can be made to appear by its opponents as a greedy grab for Federal funds at a time when all reasonable people recognize the need for restraint in Federal disbursements — even for restraint in investments of this high caliber."

The CFA administrator said he was not advocating high rentals in college and university residence halls. Rather, he argues that the minor adjustment in the interest rate would not place an appreciable burden on either the student or the institution. He said the new legislation had overreached itself in the artificially low interest rate which he feels eliminates private participation.

ARMY ENGINEERS DEVELOP FIRE RETARDANT PAINTS

The Army Engineers' research and development laboratories at Fort Belvoir, Va., announced the discovery of fire retardant paints which it was claimed would slow down the rate of burning of covered surfaces.

(*Continued on page 312*)



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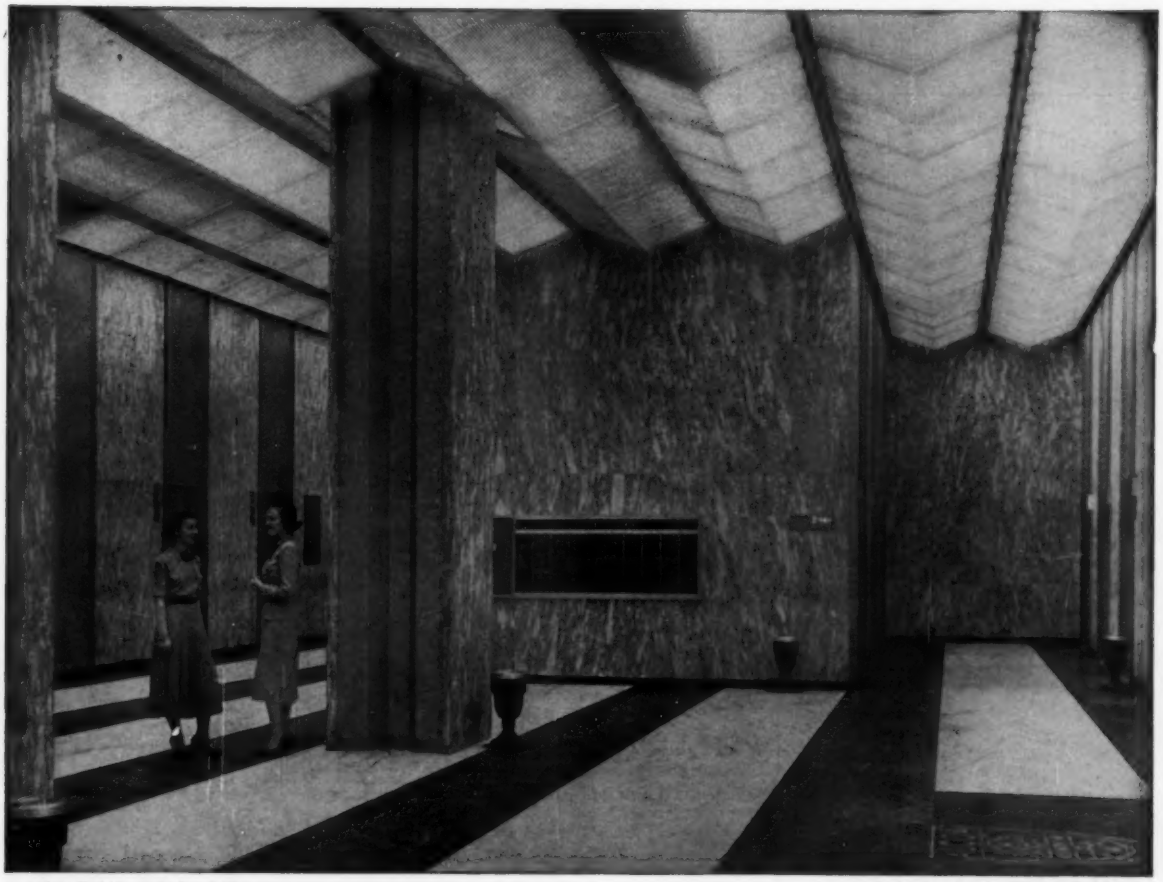
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Alcoa Building, Pittsburgh, Pa. *Harrison & Abramovitz, Architects*

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The brilliance of new materials can be a monotonous thing, unless the softening influence of inimitable nature lends its hand. It can be a treacherous thing, unless means are taken to make it practical, easy to live with, economical to maintain.

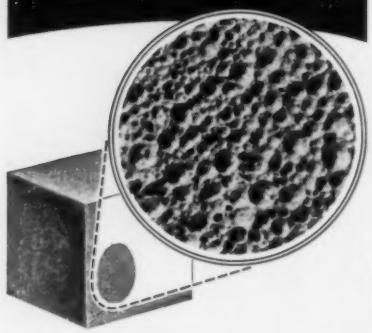
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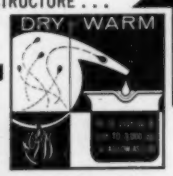
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THE RECORD REPORTS

WASHINGTON TOPICS

(*Continued from page 310*)

Containing certain pigments and oils which form a spongy insulating layer when subjected to heat, these paints combine all the esthetic and protective properties of good interior and exterior paints, according to Harvey Miller, a project engineer in the laboratories' materials branch.

Several pigments and vehicles were investigated before protective coating specialists at the laboratories were able to develop the effective fire control aids. Laboratory paints were formulated and tested under various conditions along with samples submitted by industry.

Since the Army's needs are global, the paints were evaluated in the Arctic, desert, and tropics as well as at Fort Belvoir. Following six-month and one-year exposures, they were returned to the Laboratory and evaluated for residual fire retardancy. This was done by burning the test panels in a cabinet under controlled conditions and calculating the amount of weight loss and char volume.

The use of fire retardant paints does not stop fires, the Corps of Engineers noted, but it does aid materially in minimizing damage and loss of life. These paints could have lessened the damage at Hiroshima and Nagasaki considerably, it was said, and they might become a major aid in civil defense.

WOOD BLOCK FINISH FLOORS STUDIED BY BRAB FOR FHA

The Building Research Advisory Board moved into a study of wood block finish floor installation with the appointment of an 18-man advisory committee by the National Research Council. The study is being handled by BRAB as one of a series for the Federal Housing Administration. Results will be used by FHA in possible revision of its Minimum Property Requirements.

Chairman of the new group is L. J. Markwardt, assistant director of the Forest Products Laboratory of the Department of Agriculture at Madison, Wis. Membership represents home building, flooring materials, mastic materials, flooring installation, moisture control, finishes and laboratory research.

The present MPR's related to wood block flooring are not uniform throughout the country, and FHA seeks to rectify this. It questions certain of the

(*Continued on page 314*)

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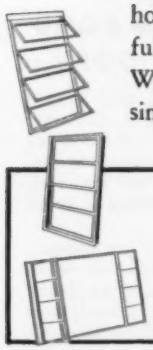
REYNOLDS ALUMINUM WINDOWS



Architect: Carl Koch & Associates, Cambridge, Mass.

The simplicity of this Reynolds Aluminum window fits the basic TECHBUILT idea of a distinctively designed packaged house that goes up quickly and economically. This horizontal sliding unit becomes part of the shell —no projections, no problems. It is the easiest type to install. Vents open with fingertip ease, close tight, lift out for cleaning. In the latest Reynolds Window Catalog, the horizontal sliding type is represented by a full line of Reynolds Aluminum Traverse Windows. They are available in double vents, single vents and the popular strip series.





In the same 32-page catalog are full details of the widely preferred Reynolds Aluminum Casement Windows, Awning, Double-Hung, Basement and Utility Windows. Write for your copy. **Reynolds Metals Company,** Window Division, 2015 S. Ninth Street, Louisville 1, Ky.

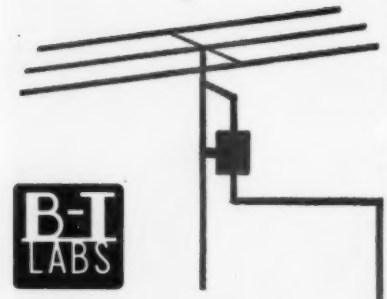


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Techbuilt specification for two-ply aluminum insulation in the roof panels is dependably met by a double application of Reynolds Aluminum Reflective Insulation, Type B. Available in rolls of 250 sq. ft., 25", 33" and 36" wide.
Reynolds Metals Company, Building Products Division, 2015 S. 9th St., Louisville 1, Ky.

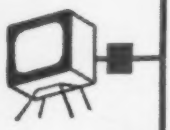
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THE RECORD REPORTS

WASHINGTON TOPICS

(*Continued from page 312*)

mandatory minimums as unrealistically limiting use of new products and installation methods. BRAB said a lack of generally recognized standards exists, and because many unsatisfactory installations have occurred, more protection is sought for home owners.

To be completed by March 1, the study will result in a final report to FHA Commissioner Norman P. Mason. If he approves, the report will then be made public. The study was outlined by BRAB as follows:

1. Types of wood block and species of wood used.
   a. Expansion and contraction requirements for proper installation.
   b. Methods of finishing the flooring.
2. Adhesive materials and methods used in mastic application.
   a. Hot and cold applications.
   b. Preparation of the subflooring.
   c. Recommendations for overcoming frequent misuse of mastics.
3. Cause, effect, and control of moisture from above or below flooring.
   a. Moisture problems related to various construction floor systems on which the finish flooring is supported.
      (1) Concrete slab-on-ground construction.
      (2) Various suspended subfloor types.
4. Maintenance and repair problems.

DISPERSAL THE POLICY BUT OBSTACLES ARE RECOGNIZED

The Defense Department again defined its policy on industrial dispersion in an effort to relieve heavy plant concentrations in potential target areas. The new statement recognized what it termed "obstacles" to maximum dispersal — cost, dislocation in existing areas of population, delay of vital defense production and development.

These criteria were set out as being worthy of serious consideration in any practical solution to dispersal problems:

1. When multiple sources for an item of material or development are practical, dispersal will be a key factor in selection of the additional sources. Wherever practicable, this principle will also be

(*Continued on page 316*)

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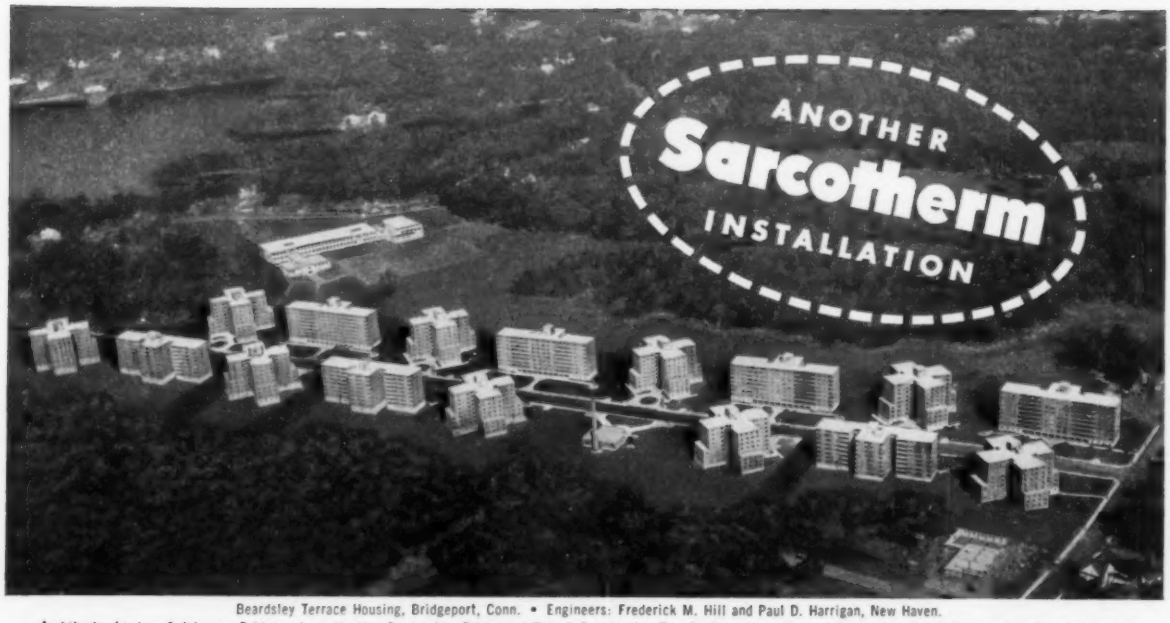
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Architects: Lindsay & Johnson, Bridgeport. • Heating Contractor: Bridgeport Pipe & Engineering Co., Bridgeport. • General Contractor: E & F Construction Co., Bridgeport.

Here's why Mechanical Engineer is **enthusiastic about Sarcotherm in 1200-family 16-building project**

AS Mechanical Engineer Paul D. Harrigan writes, "Sarcotherm steam heating controls in Beardsley Terrace Housing...working perfectly through extreme part of Winter as well as in Spring...sensitive, accurate and flexible...the Housing Authority, the architects and we ourselves are entirely satisfied."

Sixteen Sarcotherm Weather-Compensated Controls serve Beardsley Terrace. Of the continuous, modulated flow design, they provide individual zone control for the steam heating of each building. Precisely engineered orifice plates assure the proper steam flow to each heating unit.

COMPLETE SYSTEM — UNDIVIDED RESPONSIBILITY

Sarcotherm engineers cooperate in the preparation of working drawings and wiring diagrams for each job, and follow through with on-the-job help and supervision of installation.

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LEAP Pre-Stressed concrete tee joists in this Mayflower warehouse give long, clear spans with no truss supports or posts to take up valuable space.

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(Continued from page 314)

applied in the case of multiple sources for subcontract work.

2. Dispersal will be one of the prime considerations in the location of new facility construction, particularly when furnished at government expense or with Federal aids to construction. This may not necessarily apply to those new facilities which constitute a desirable, but relatively minor, adjunct to existing defense facilities.

3. To avoid the excessive cost and the resulting social dislocation attendant on the abandonment of existing production facilities, all facilities in being will be maintained in use as required. Every effort will be made to require the use of existing facilities before new facilities are constructed.

4. The urgency of dispersal should always be weighed against the urgency of the requirement for timely delivery of the vital product involved.

5. Consistent with the above, the objective shall be to avoid the tendency towards over-concentration of critical defense facilities in target areas.

The directive was signed by Reuben B. Robertson Jr., deputy Secretary of Defense.

FHA ISSUES NEW RULES ON MOBILE HOME PARK SITES

The Federal Housing Administration last month issued new instructions to its field offices covering architectural, valuation and mortgage credit processing of applications for insured loans covering sites for "mobile home" (trailer) parks.

Congress last year approved this new type of FHA mortgage insurance for land on which trailers are to be located. Under Section 207, FHA can insure mortgages on the land but not on trailers themselves. Such mortgages can not exceed $1000 per trailer space or $300,000 per mortgage. Congress dictated that the mortgages so insured must be "economically sound."

Trailer manufacturers are naturally enthused over this development, and look for stimulated sales to be a direct result. The plan poses an interesting addition to the various other FHA mortgage insurance programs. Will it increase competition with motels?

Here is how FHA has said it is pre-

(Continued on page 318)



Good pencils mean BETTER TRACINGS and superior PRINTS

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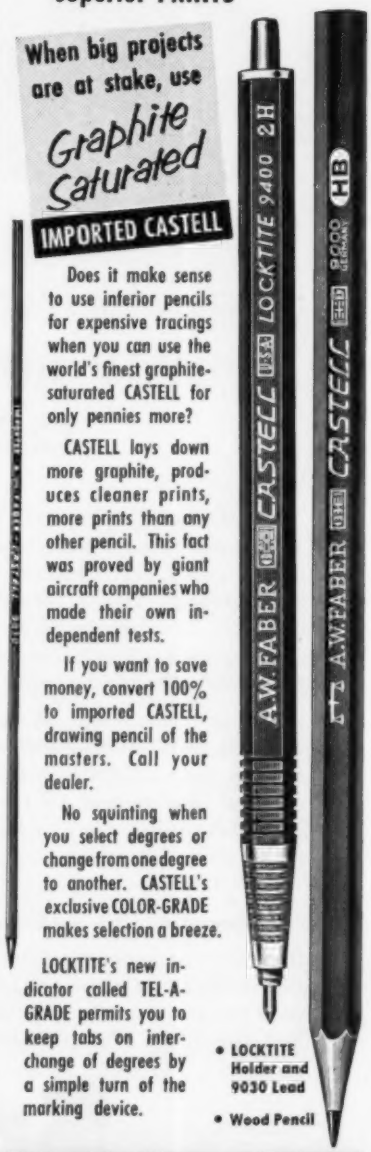
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CASTELL lays down more graphite, produces cleaner prints, more prints than any other pencil. This fact was proved by giant aircraft companies who made their own independent tests.

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No squinting when you select degrees or change from one degree to another. CASTELL's exclusive COLOR-GRADE makes selection a breeze.

LOCKTITE's new indicator called TEL-A-GRADE permits you to keep tabs on interchange of degrees by a simple turn of the marking device.



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INSULATION news from L·O·F GLASS FIBERS COMPANY



High tensile strength of 1-inch Super·Fine blankets permits them to be pulled between duct and wall without tearing. Application: Combination heating and cooling ducts at Northwood Shopping Center, Royal Oak, Mich. Architect: Louis A. Redstone; associate architect: Allan G. Agree.

New shopping center benefits in 3 ways with efficient Super·Fine duct insulation

Like architects Louis Redstone and Allan Agree, you will find that L·O·F Glass Fibers' Super·Fine duct insulation offers three important advantages to your clients . . .

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2. Longer life. Resilient Super·Fine retains its thickness and insulating efficiency indefinitely. Inorganic glass fibers will not support combustion, absorb moisture, rot or decay.

3. Swift, money-saving installation. Lightweight Super·Fine blankets are pleasant to handle; cut easily with an ordinary knife. Without precision measuring or fitting, they were simply wrapped around adhesive-coated ducts and secured with light-gauge wire. Strong and resilient, they were pulled between wall and duct—were fitted readily into irregular and hard-to-reach places.

Super·Fine is also used as duct liner to reduce sound in air-conditioning ducts. It is an excellent sound absorber, especially in the high-frequency range.

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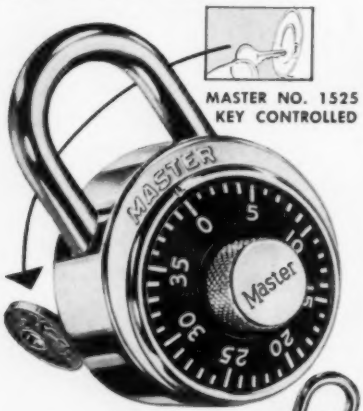
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Master Lock Company, Milwaukee 45, Wis.
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(*Continued from page 316*)

pared to handle the "architectural" processing:

The purpose is to improve the living conditions of the occupants of mobile homes. FHA participation was described as an opportunity to provide guidance in the development of desirable conditions and environment in which this segment of the rental market may locate its mobile homes. The agency's field directors were told that such FHA-assisted projects should be "exemplary," one spokesman said.

The government has decided that despite the mobile home appellation, trailer occupants stay in one place long enough to escape being classed as transients. The conveniences and services they require must be provided in such a way that "maximum livability" and "continuing appeal" result. In short, FHA said that mobile home courts must provide a wholesome, safe, living environment, ease of ingress and egress, adequate parking for trailers and tractor vehicles, adequate free space between the trailers and on the site for incidental living purposes. Fire prevention must also be a consideration.

FHA field directors were told that water and sanitary facilities must be conveniently available, as must laundry and other facilities. It was added that general desirability, appeal, service, convenience and amenities must be commensurate with the anticipated rentals or charges in view of the existing and probable competition in other locations.

FHA is making its Minimum Property Requirements generally applicable.

While the trailers themselves are excluded from the benefits of insured loans, related and acceptable commercial spaces and permanent family living units for management and operating personnel may be included. The controlling consideration is that such buildings be "acceptably integrated" in the project design. All structures and improvements on the property, continued FHA, must comply with applicable requirements and be primarily for the use of or service to the project occupants and any nonresidential portions must be subordinate to, and harmonious with, the residential use of the property.

Utility installation is covered by the Section 207 program. Existing courts can be improved and expanded with the

(*Continued on page 322*)

Do you recognize



this renderer's technique?



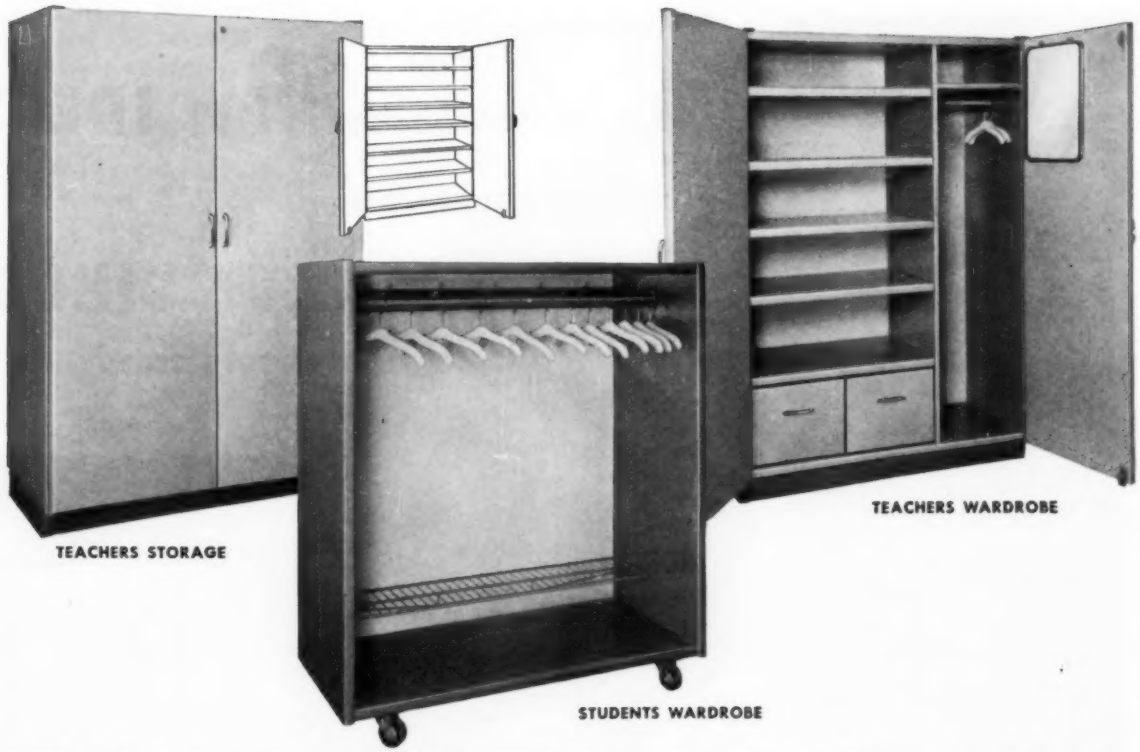
The pencil technique of a top flight renderer is as distinctively and individually his as his signature. Yet the work of so many of these fine artists has one thing in common — it is done with Mars-Lumograph imported drawing pencils and leads. Renderers find Mars the perfect pencil for every step of the job.
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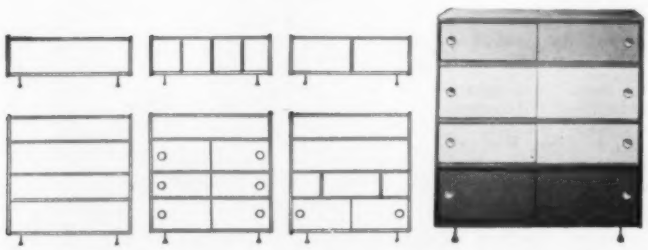
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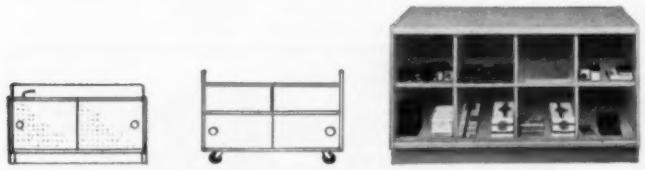
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- how the American habit of travel, greatly magnified in recent years, has promoted better design in airport buildings, rail and bus terminals, and roadside service stations
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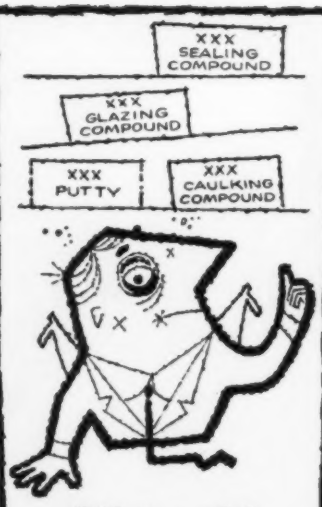
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aids provided they comply with the MPR's applicable.

LUMBERMEN TOLD TO WATCH BUILDING CODE REVISIONS

The nation's lumber manufacturers are continuing their drive to revise outmoded local building codes with a view toward a better position for their products. Riding a mounting wave of demand for the rewriting of archaic regulations, the National Lumber Manufacturers Association said it was fully aware of the difficulty — the virtual impossibility — of promoting a material once it had been ruled out of a market by code specification.

An annual report by the N.L.M.A. to its board of directors told of the increased demand for revision of building codes, demand from a variety of sources such as government agencies, city officials, builders, architects and others. It called attention to a danger, however, that codes rewritten under the pressures of unfavorable criticism would lack the deliberate thought and consideration needed.

The organization called for vigilance against restrictions which would operate to prohibit or severely curtail the use of lumber.

The report asserted that most of the difficulties stem from the word "combustible." It stated: "Long ago the simple truth that wood is combustible and steel is not was indelibly written into the minds of builders, insurance people, and those responsible for the preparation of codes, standards and specifications. Lumber has suffered from this, despite the fact that timber construction is far more safe and definitely superior to unprotected steel in case of fire and has been many times so proven. Numerous instances reveal wooden members to have retained their load-carrying capacities long after metal members collapsed; but recognition of this, although given, is too often discounted. The result has been unjustified discrimination against wood in building codes and insurance rates with attendant benefit to non-combustible materials. Restrictions upon heights and areas, and upon interior finish, affect large volume lumber markets."

(Continued on page 326)

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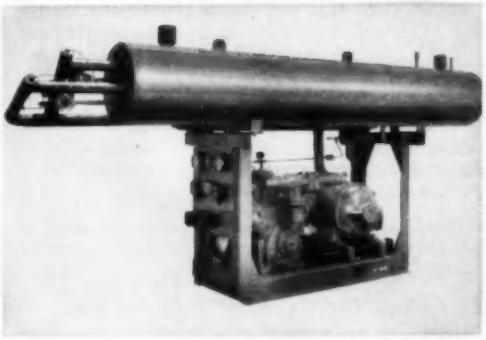
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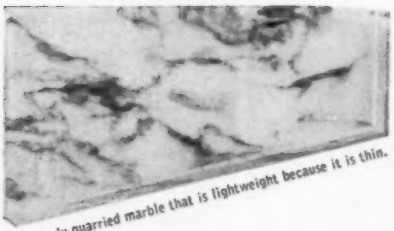
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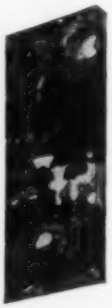
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THE RECORD REPORTS

WASHINGTON TOPICS

(Continued from page 322)

ADDENDA

The U. S. Office of Education announced figures showing 2,716,000 students in U. S. colleges and universities with the start of the 1955–1956 year. This was an all-time record, 8.6 per cent above the previous high peak of 2.5 million students enrolled in the fall of 1954. It marked the fourth consecutive year of college-university student increase. New students entering last fall numbered 694,000, eight per cent over the fall of 1954 total.

Veterans Administration announced that fall enrollments of veterans under the Korean GI Bill broke all past records. Number of students studying under the aid was to have passed the 700,000 mark by the end of 1955. About 615,000 Korean veterans were in training November 1. This was a 36 per cent increase over the 451,000 enrolled the year before. GI college enrollments made their greatest increase in the last school year, rising from 225,000 veteran students on November 1, 1954, to 341,000 this last fall, a 50 per cent gain.

The United States Chamber of Commerce published a new "Urban Development Guidebook" based upon its findings in a series of conferences on the subject held in six American cities. The guide-book combines suggestions made by civic leaders in the six communities and contains supplementary material supplied by members of a special advisory committee. Part One of the publication sets forth a brief step-by-step plan of action for dealing with problems of urban development, and Part Two deals with separate aspects of these problems in greater detail. The advisory committee was chairmaned by Max S. Wehrly, director of the Urban Land Institute, and James F. Steiner, assistant manager of the Construction and Civic Development Department of the National Chamber, served as secretary. The book comes out as a publication of the department, and sells for $1 per single copy, or 50 cents per copy in quantities of three or more. It is particularly timely in view of the increasing numbers of cities entering the Federal urban renewal program. Federal aids available to cities are covered in a separate chapter in the new guidebook.





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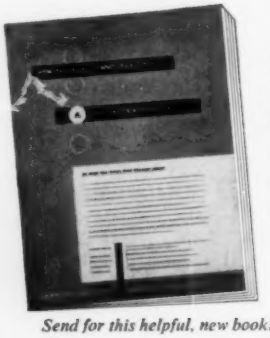
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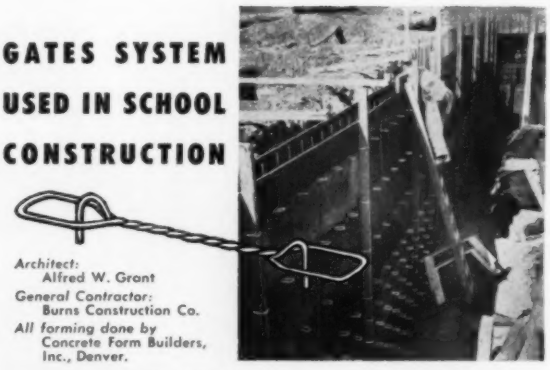
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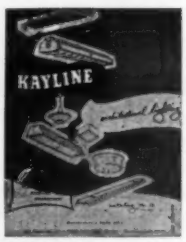
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REQUIRED READING

(Continued from page 60)

grants have played important roles in Latin America. In São Paulo, of the two leading architects one is Italian and the other of German descent. Architects of Italian birth are among the leaders in Colombia and Peru, and so forth. However, the author points out, most of the non-Iberians have ultimately been assimilated more completely than the European architects who settled in the United States just before the last war.

The major element of cultural homogenity is provided by the Catholic Church. In spite of this fact, the church is laggard at building today and generally unsympathetic or unresponsive to new ideas in architecture.

The greatest evidence of North American influence in Latin America (and it is surprisingly scarce) is in the centers of large cities where tall, new 20th century office buildings are too often choking up the narrow 16th century streets. Much of the most spectacular works are being carried out by the ministers of public works in large-scale university cities, hospitals and government buildings. To some extent the North American influence has been felt in house design — that of indoor-outdoor relationships — although the center patio and high non-windowed outer wall remains dominant for sociological reasons.

Although he describes the best works of each individual country, Mr. Hitchcock does not discuss the merits of individual architects in very great detail. He does, however, praise the work and inspiration of Oscar Niemeyer, and the profound influence he has had on the rest of the continent.

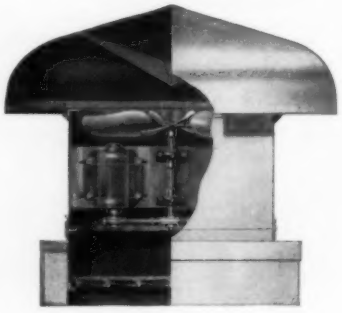
In concluding, he states . . . "Partly, modern architecture has grown up by following leaders — Le Corbusier, Gropius, Mies, Frank Lloyd Wright — but also it has always grown on broader fronts. For good or for ill, it is international in its future. Everywhere there can be profit from exchange of ideas. In modern architecture North America has already given a great deal and will doubtless give much more. But there is much also that we can profitably receive, particularly now that Western European production is so low in quantity and so inhibited by economic difficulties. In architecture Latin America is more than able to hold its own with the rest of the Western World. . . ."

Mr. Hitchcock, who was awarded the

(Continued on page 334)



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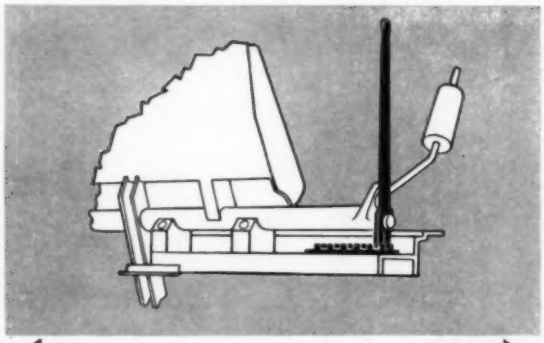
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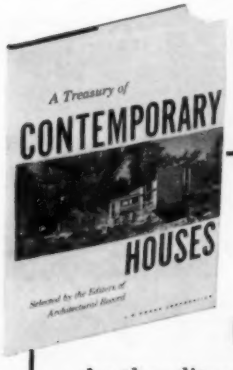
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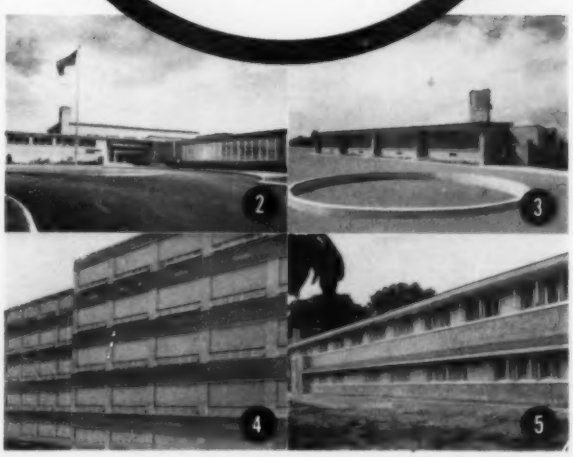
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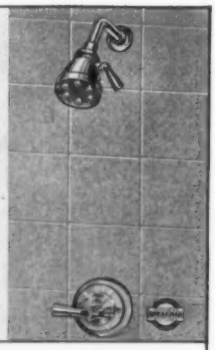
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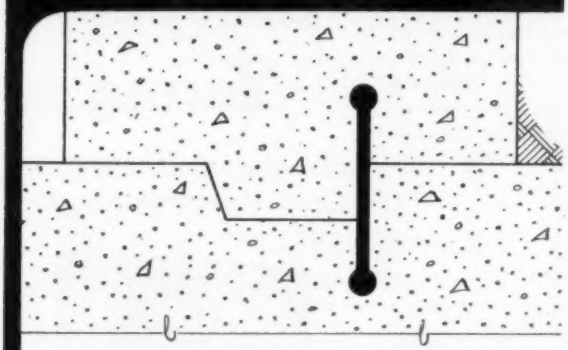
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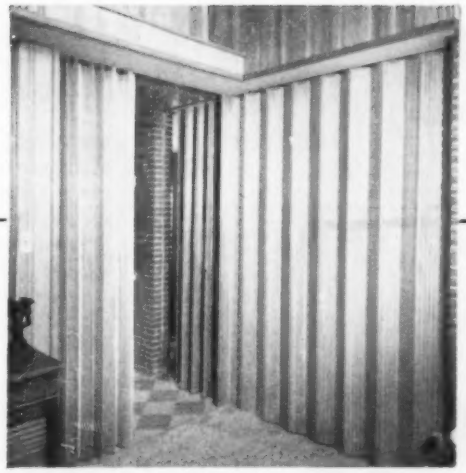
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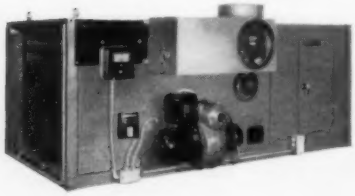
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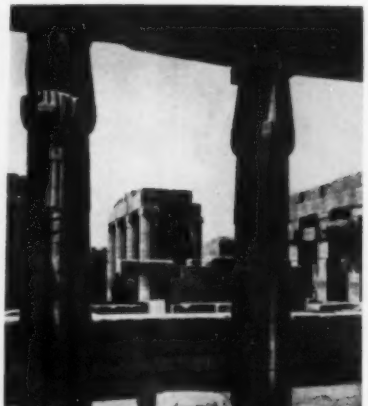
(Continued from page 330)

fifth annual book award by the Society of Architectural Historians last year for *Early Victorial Architecture in Britain* has presented the picture of architecture in Latin America with customary clarity, scholarliness and interest. One can only wish that the contemporary architecture of every culture were as well documented.

EGYPT PHOTOGRAPHED



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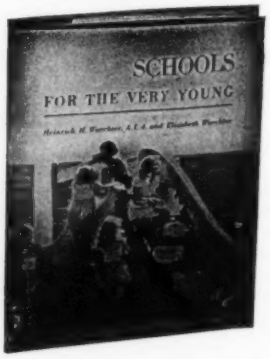
Temple of Amun

Eternal Egypt. By Clement Robichon and Alexandre Varille; translated by Laetitia Gifford. The Philosophical Library, Inc. (15 East 40th St., New York) 1955. 140 pp, illus. $6.50.

This is a book of splendid photographs covering the monuments and splendors of the ancient civilization and the life in the present-day big towns of Egypt. Explanatory notes and a foreword by Alexandre Varille accompany the photographs.

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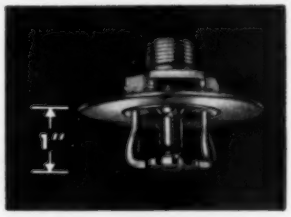
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North Square, Boston. Courtesy Paul Revere Memorial Association.

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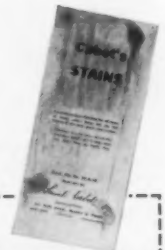
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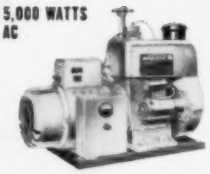
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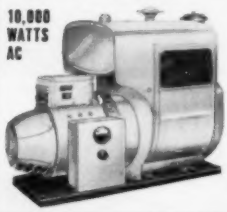
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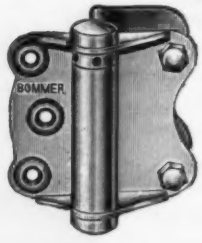
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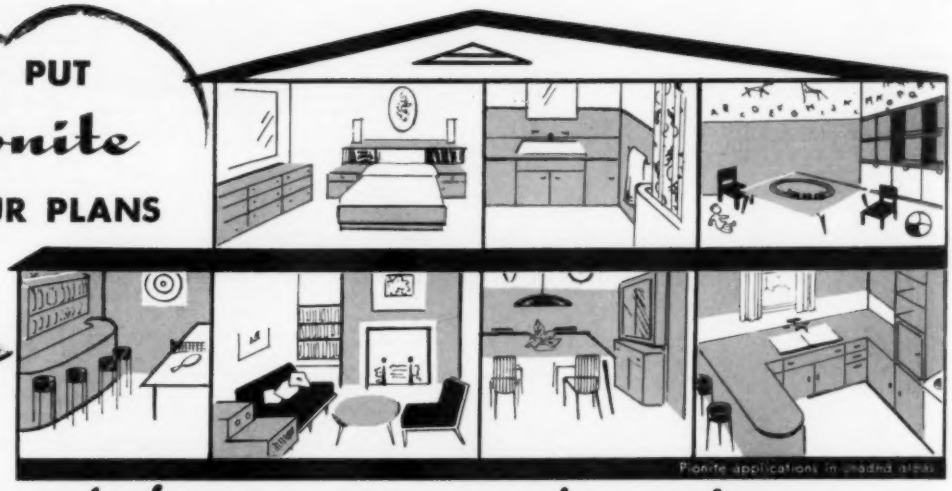
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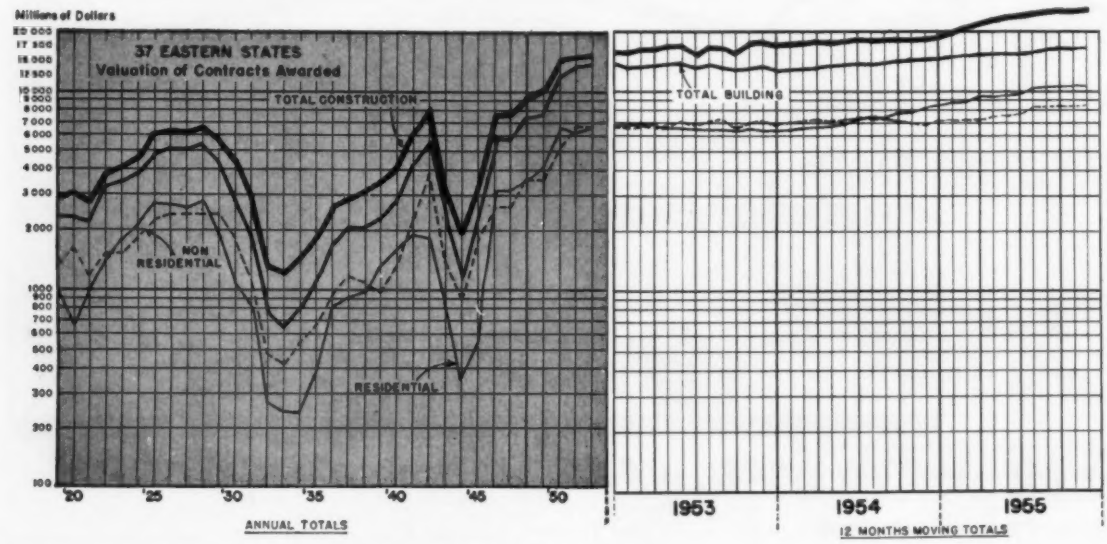


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DODGE TOTALS RESUME UPWARD TREND

The latest F. W. Dodge totals on dollar volume of construction contracts awarded in the 37 states east of the Rockies were back to their familiar pattern — new highs in every category, new highs for the month and the year to date — after reflecting the first year-to-year dip in 18 months on the October totals. The November total produced at least eight new records: (1) the highest total for any November (at $1,796,787,000 up 20 per cent over November 1954); (2) the highest total for any first 11 months (at $21,824,523,000 up 22 per cent over the 1954 period); (3) the highest total for any November in the residential classification (at $725,712,000 up two per cent from November 1954); (4) the highest total for any November in the nonresidential classification (at $662,608,000 up 35 per cent); (5) the highest total for any November in utilities and public works (at $408,467,000 up 37 per cent); (6) the highest total for any first 11 months in residential construction ($9,474,053,000, up 22 per cent from the 1954 period); (7) the highest total for any first 11 months in nonresidential ($7,770,004,000 up 21 per cent); (8) the highest total for any 11 months in utilities and public works ($4,580,466,000, up 21 per cent).

Charts by Dodge Statistical Research Service

Source: F. W. Dodge Corporation

HOTEL BUILDINGS*

Contracts Awarded—37 Eastern States

Valuation (in thousands of dollars)

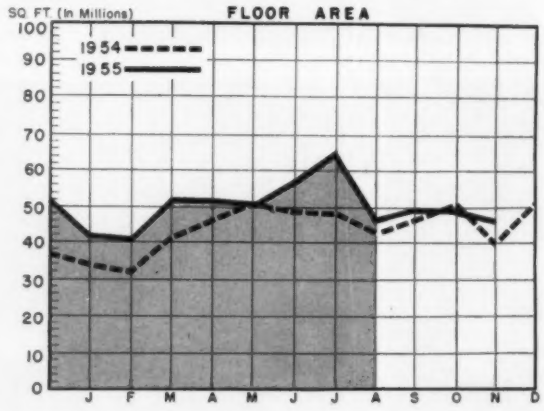
Year	Annual Total	Monthly Average	Year	Annual Total	Monthly Average
1929	159,438	13,286	1950	54,804	4,567
1935	8,028	669	1951	30,428	2,536
1943	3,522	294	1952	32,295	2,691
1947	26,322	2,194	1953	48,338	4,028

Monthly Totals

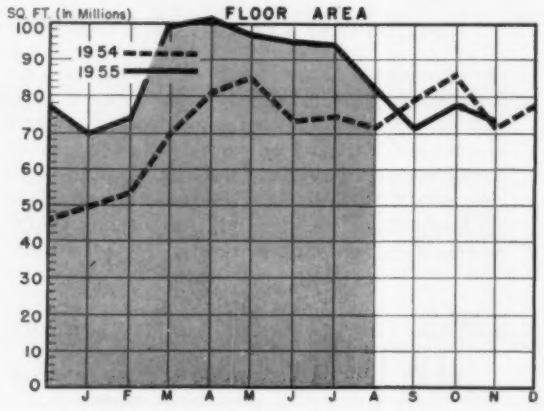
1954				1955			
Jan.	1,905	July	7,690	Jan.	5,889	July	13,814
Feb.	3,358	Aug.	1,199	Feb.	3,909	Aug.	11,786
Mar.	4,922	Sept.	3,259	Mar.	11,740	Sept.	4,261
Apr.	12,715	Oct.	2,761	Apr.	5,443	Oct.	2,239
May	1,750	Nov.	124	May	1,628	Nov.	1,535
June	3,051	Dec.	2,249	June	2,205		
12 months 1954—44,983				11 months—64,449			

* "Lodgings for Travelers" is the title of Building Types Study No. 230, pages 170–197.

NONRESIDENTIAL BUILDING (37 EASTERN STATES)

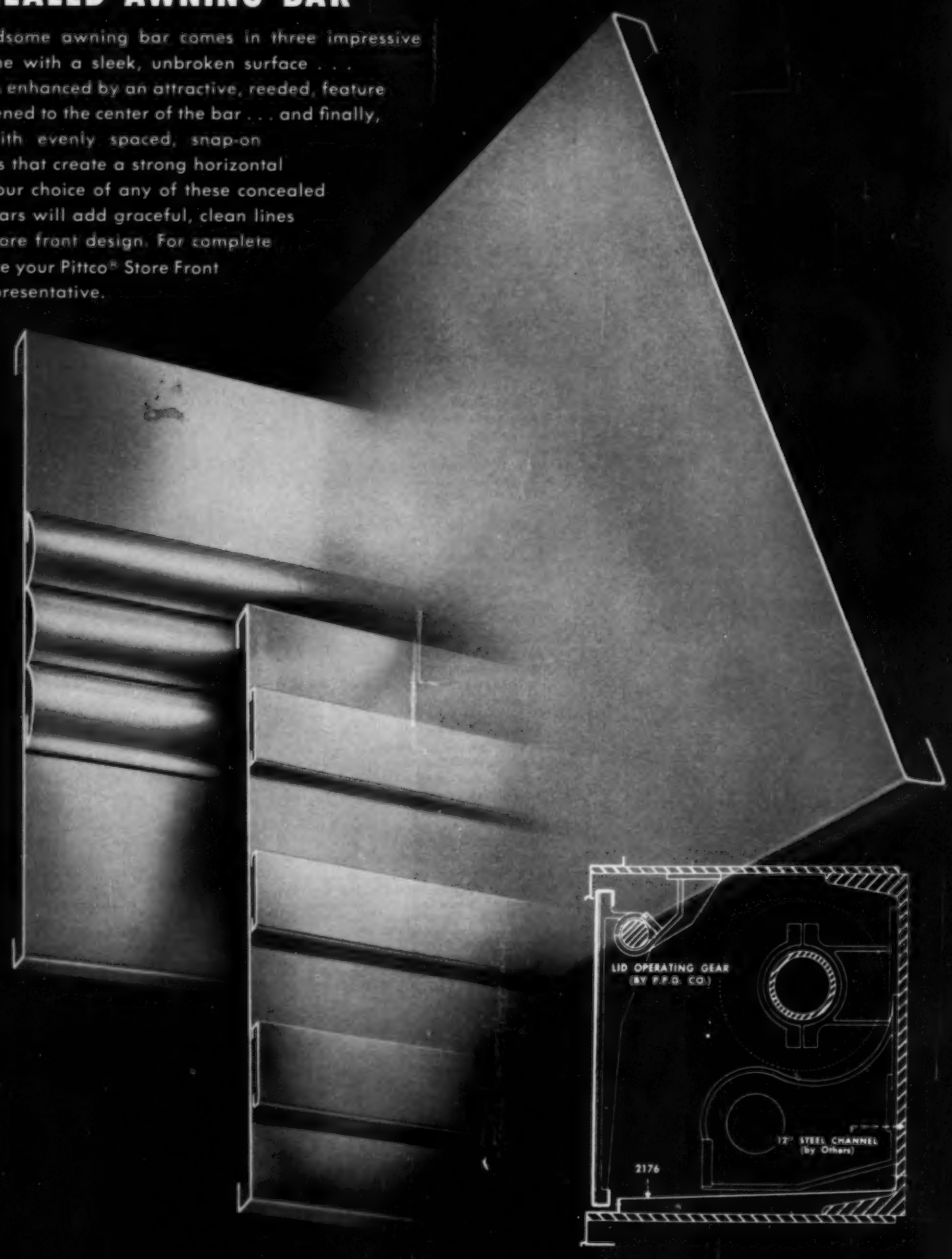


RESIDENTIAL BUILDING (37 EASTERN STATES)



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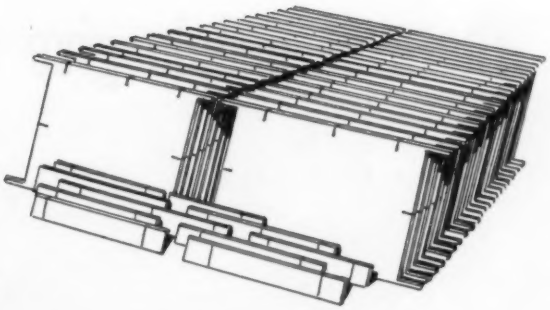
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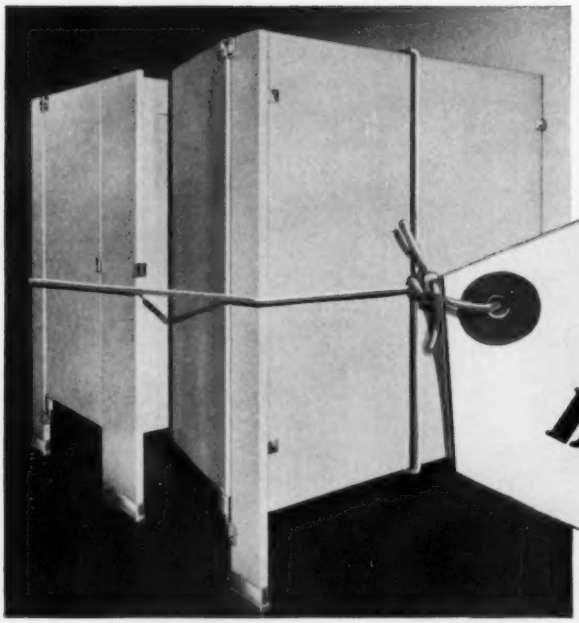
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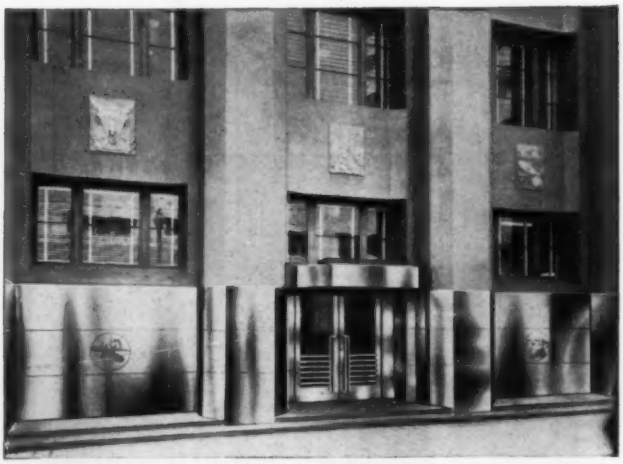
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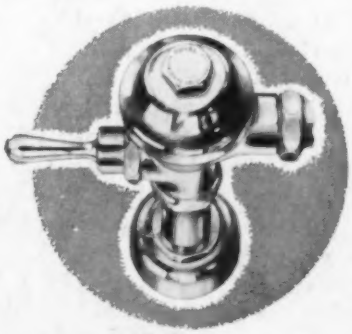
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